YC 71477

REESE LIBRARY

OF THE

UNIVERSITY OF CALIFORNIA.

Class

THE

HISTORY OF NORTH AMERICA

Guy Carleton Lee, Ph. D.

of

Johns Hopkins and Columbian Universities, Editor

REESE LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA

Copyright 1905 by E. Barrie & Sons



CAPITOL AT AUSTIN, TEXAS

Type of State buildings in the South.

THE HISTORY OF NORTH AMERICA

VOLUME SEVENTEEN *THE RISE OF THE NEW SOUTH*

BY

PHILIP ALEXANDER BRUCE

LATE CORRESPONDING SECRETARY OF THE VIRGINIA HISTORICAL SOCIETY

Author of: *The Plantation Negro as a Freeman*; *Economic History of Virginia in the Seventeenth Century*; *A School History of the United States*, etc., etc.



PRINTED AND PUBLISHED FOR SUBSCRIBERS ONLY BY

GEORGE BARRIE & SONS, PHILADELPHIA

E45
.H5
v.17

Copyright, 1905, by George Barrie & Sons

Entered at Stationers' Hall, London.



EDITOR'S INTRODUCTION

THE subject of the South since the Civil War is an inspiring one. The years offer such examples of heroic effort, such persistent struggle, such triumphant result, that the historian finds himself tending to an exaltation of mind that requires the sternest control to reduce to matter-of-fact statement. Indeed, he who deals with generalities in considering what has not inaptly been termed the "New South" must treat details, must give facts and figures to back his assertions, if he is to command the attention of students as well as general readers.

The author of the present volume has felt the inspiration and the necessary repression incident to his division of the history of North America. Himself a native of the South and in close touch with the tremendous advance that has excited well-nigh as great admiration as did the heroism of the South in the Civil War, an active participant, indeed, in the movement that has made the South of to-day, he is peculiarly fitted to write upon the subject assigned to him. His personal knowledge has given him the point of view of the Southerner, and the training in analytical investigation which enabled him to produce the histories associated with his name has caused him to extend his field of observation to all accessible data.

The author has, therefore, succeeded in presenting what may without prejudice be regarded as the authoritative work upon the subject. He has taken up his task at the close

187460

of the period described in the volume of THE HISTORY OF NORTH AMERICA entitled *The Reconstruction Period*, and, covering the entire South, has described its growth. In doing this, he has been obliged to embrace a wide range of subjects. The resources and productions of the land, the state of its people at the close of Reconstruction and their condition to-day, the circumstances of the increase in wealth and the foundations for a still greater growth in the future, the religious and social statistics, are but a few of the great subdivisions into which are grouped the abundant detail of the present volume,—a detail, we may add, that is based upon the latest and most authoritative sources.

But many as are the facts, abundant as are the statistics, the work is by no means a dry and lifeless report upon the condition of the South. It is, in fact, a vital narration of the progress of a mighty people, who, from adversity such as no other section of North America has ever experienced, by tremendous effort, wise direction, and unswerving loyalty, have not only regained in the regard of the nation that place which was theirs before the war between the States, but have done more; for the South has exhibited capabilities which the world did not believe she possessed, has attained success in directions to which before the War she did not turn, and, despite the handicap under which she has labored, has won the race with adverse fate and become the pride of the Union which less than half a century ago she sought to disrupt.

GUY CARLETON LEE.

Johns Hopkins University.

CONTENTS

CHAPTER PAGES

EDITOR'S INTRODUCTION v–vi

I POPULATION 3–16

End of chaos and submission. New birth of prosperity. War and Reconstruction met with an undaunted spirit. Influences that upheld the South during Reconstruction. Insignificant immigration during half a century. War and Reconstruction strengthen homogeneity of the South's population. Why volume of immigration remains small. Native and foreign born population. Decline in foreign born population. Relative increase of native population. Immigration bureaus. Effect of diversified employment. Sparse population a barrier to foreign immigration. Immigration to other States. Usefulness of the foreign settlers. Relative increase of whites and blacks. Decline in negro majorities. Causes of the more rapid increase of white population. Death rate among negroes. Northward drift of negro population. Effect of slavery on growth of negro population. Submersion of white population. Former emigration of whites. Pressure to emigrate diminishes. Southern residents of North and West. The South still a rural community. Growth of urban population. Urban population of manufacturing States. Most remarkable urban growth. Density of population.

II PRODUCTS OF THE FARM 17–28

An agricultural system destroyed. Enlargement of individual estates. Reasons for the engrossment of the soil. Influences promoting the subdivision of the soil. New social conditions promote subdivision. Increasing rapidity of subdivision. Number of Southern farms. The average of increase. Farm acreage. Subdivision the cause of increased number of farms. Area of unimproved soil. Number and acreage of farms in five representative States. Negroes' share in the subdivision.

CHAPTER PAGES

Negro property holders of Georgia. Of other States. Economic results of subdivision of lands. Disappearance of plantation mechanics. Old system of cultivation. Effect of chemical manures. The negro on the large cotton plantation. Inefficiency of negro labor. Instability of negro labor. The migratory instinct. The most intelligent negroes drawn away from agriculture. Preference for the negro laborer. The negro not disposed to strike. The negro and the agricultural labor market.

III PRODUCTS OF THE FARM—(CONTINUED) . . 29–43

Wages of agricultural laborers. Southern wages compared with Northern. Perquisites of Southern laborers. Large estates rented. Why negroes prefer to rent. Varieties of tenancy. Amount paid in rent. Terms of leases in Georgia and the Carolinas. Terms of leases in other Southern States. Prevalence of tenant system. Lien laws. Length to which lien laws are carried. Proportion of cotton crop subject to lien. Evils of tenant system. Influences encouraging the adoption of tenant system. Lack of intelligent labor. Agricultural institutions for the blacks. Hampton Agricultural and Normal Institute. Agricultural instruction at Hampton. Tuskegee Normal and Industrial Institute. Work of the Institute. Other agricultural colleges for negroes. Agricultural colleges for the whites. The Hatch Act. Number of agricultural pupils. Experiment stations. Model farms. Farmers' institutes. State encouragement of farmers' institutes. State agricultural departments. Artificial manures. Live stock and leguminous plants. Composition of Southern lands. Differences of climate. Experiments for the production of the best tobacco.

IV PRODUCTS OF THE FARM—(CONTINUED) . . 45–62

Agricultural wealth of the South. Cotton the chief crop. Growth in volume of annual production. Decline in price of cotton. Steady drift of the cotton growing area southwest. Cotton crop of Texas. Annual export of cotton. World's consumption of raw cotton. Productive capacity of the South. General cost of growing cotton. Cotton seed and its value. Decline in the cost of cotton planting. Influences that will bring about a further decline in cost. Tobacco a less stable product than cotton. The principal tobacco producing States. Fluctuations in volume and price. The product of Kentucky, North Carolina, Virginia, and Tennessee. Value of the Southern tobacco crop. Varieties of tobacco. Their

CHAPTER PAGES

special uses. Tobacco culture in Florida. Local tobacco warehouses. Tobacco manufacturers as purchasers. Decline in corn and wheat produced since the War. Corn and wheat crop of the Southern States. A larger acreage of cereals warranted. The rice crop. Capacity of the South for growing rice. Rice culture in South Carolina. Disorganized labor system. Combined rice crops of the Carolinas. Drawbacks to successful culture. Rice crop of Georgia. Rice culture in southwestern Louisiana. Irrigation canals constructed. Rice culture in Texas. Cultivation of sugar cane. Sugar factories. Narrow margin of profit. The Louisiana product. Sugar syrup. Sugar crop of Georgia. Of Florida. National consumption of sugar. The South capable of supplying the entire home demand.

V PRODUCTS OF THE FARM—(CONTINUED) . . 63–77

Southern trucking interests. The first northern consignments of Southern vegetables. Causes of growth in Southern trucking. The negro as a laborer in the trucking region. Services of women and children. Physical conditions favorable to trucking. Peninsula trucking district. Baltimore trucking district. Norfolk trucking district. Means of transportation. The peanut. Wilmington trucking district. Charleston and Savannah trucking district. Florida peninsula trucking district. Rapid growth of trucking interests in Southern States. Grape culture in Virginia. Fruit culture in the Carolinas. Fruit culture in Georgia. Fruit culture in Alabama and other States. Orange culture in Louisiana. The fruits of Florida. Value of Southern orchard fruits. Floriculture. Forage grasses. The grasses best adapted to the South. Superior quality of leguminous plants. Red clover and other plants. The cowpea and the peanut. Cotton seed hulls. Cotton seed meal. Neat cattle, sheep and swine. Influences affecting Southern live stock interests. Hog breeding. Advantages of the South in raising hogs. Introduction of new breeds of hogs. Local demand for milk and beef. Cattle raising in Texas. Packing houses in Texas. Breeding of horses in Kentucky and Virginia. Value of live stock in the Southern States.

VI PRODUCTS OF THE FOREST 79–93

Origin of the extensive Southern forest area. The second growth. Traces of former cultivation. Surface in forest in each Southern State. Standing timber of the original growth. Diversity of Southern plant life. Forest growth of North

CHAPTER PAGES

Carolina. Trees of the mountain slopes. Diversity of Carolina tree life. Size of Carolina trees. Wealth of the South in tree life. Varieties of pine, cedar, and oak. Chestnut and beach. Locust and cherry. Sycamore and walnut. Hickory. Linden. Maple. Poplar. Other valuable woods. The long-leaf pine the most important tree. Manufacture of resin and turpentine. The lumber product of long-leaf pine. Estimate of the standing pine lumber. Lumber product of North Carolina. Annual cut of Southern long-leaf and short-leaf pine. Railways develop Southern lumber resources. Cypress timber. Cypress shingles. Southern hardwood forests. Hardwood staves. Increase in value of lumber output in 1880. Policy of Southern lumber companies. Appalachian reservation. Forests of the Biltmore estate.

VII PRODUCTS OF THE SEA 95–110

The Chesapeake as a feeding and breeding ground for fish. Albemarle and Pamlico Sounds. Unique physical advantages. Incredible abundance of fish. Experiences of the first settlers. Original stores of fish diminished. Important varieties of fish. Fisheries of Maryland. Oyster fisheries. Oyster canning. Annual catch of crabs. Other Maryland fisheries. Wholesale fishery trade. Fishing ground of Virginia. The small bays. Fishing apparatus. The Baylor survey. Protection of oyster beds. Extent of the oyster fishery. Crab fishery. Various methods of capture. Menhaden fisheries. Number of persons and amount of capital engaged in Virginia fisheries. Advantages of the Virginia sounds in the fisheries. The shad fisheries. Dare and Carteret Counties the leading fishery. Fisheries of North Carolina. Oyster fisheries. The Winston oyster survey. Total fishery product of North Carolina. Marine laboratory at Beaufort. Fisheries further south. Fisheries of Georgia. Freshwater fishing shores. Protection of Southern fisheries. Fish commissioners.

VIII PRODUCTS OF THE MINE 111–126

Value of Southern mineral products. The principal minerals mined. The iron age. Stimulus to the production of iron. Deposits of iron ore. Varieties. Value of iron ore produced. Coal fields of the South. Total area of Southern coal fields. The fields of Maryland and West Virginia. Of Virginia. Of North Carolina. Of Tennessee. First working of Southern coal fields. Expansion of coal mining since 1880. Extraordinary progress in West Virginia. Shipping

CHAPTER PAGES

advantages of this State. The special value of the Pocahontas field product. Coal exports from Norfolk. Great increase in coal output of Alabama. Mobile's coal shipments. Kentucky's output. The coal product of Maryland. Of Tennessee. Of Virginia. Growth of coal output in Arkansas. The Texas product. Georgia's output. North Carolina an insignificant contributor. The oil fields of the United States. Remarkable increase of West Virginia's output. The oil industry of Kentucky and Tennessee. Extraordinary development in Texas. The Beaumont field. The Lucas gusher. Other wells at Beaumont. Pipe lines to the Gulf. Stimulation of the search for oil. A large brood of new companies. Crude petroleum as a fuel. The future of the oil fields of the Southwest.

IX PRODUCTS OF THE MINE—(CONTINUED) . 127–143

Deposits of phosphate rock. Phosphate mining in South Carolina. The Coosaw Mining Company's monopoly. Course of the industry. The phosphate product of Florida. Tennessee's rich deposits. Peculiarity of the deposits. The annual product. Exports of phosphate. Southern copper mines. Their product. Lead mines of the South. Value of the product. Production of gold in Georgia. Gold mines of Virginia. Of North Carolina. Production of silver in North Carolina and Texas. Iron pyrites. Production of manganese. Fluctuations in output of Virginia. Entire output of the South. Production of bauxite. Asbestos. Ochre. Mineral waters of the Virginias. Mineral waters of Texas. Mineral clays. The beds of Georgia. Kaolin deposits of North Carolina. Slow development of Southern clay industry. Georgia's fine marbles. Annual value of the product. Marble quarries of Tennessee. Special value of Tennessee marble for decoration of interiors. Annual product and value. The granite output of Georgia. Of other Southern States. Southern limestone product. Talc and soapstone. Mica. Corundum. Precious stones. Natural gas in West Virginia. Gas pipe lines. Production of natural gas in Kentucky. Production of natural gas in Texas. Total production of natural gas.

X PRODUCTS OF HAND AND MACHINE . . . 145–157

England as a manufacturing country. The great manufacturing activity of Massachusetts. Benefit of manufactures to local interests. Raw materials considered. Why the old South was comparatively indifferent to manufactures. Land and negroes the popular form of investment. Individuality

CHAPTER PAGES

fostered by the old system. The old system retarded the growth of cities. Induced neglect of natural resources for industrial development. An awakening. Reversal of economic conditions. A notable aspect of Southern manufacturing development. Growth of Southern manufactures since 1880. Manufacturing growth not at the expense of agriculture. All raw materials possessed by the South. Other special advantages.

XI PRODUCTS OF HAND AND MACHINE—(CONTINUED) 159–167

The smaller handicrafts in the times of slavery. Negro mechanics in the country. Disinclination of the negro to follow a trade. Negro mechanics in the towns. General S. C. Armstrong and the Hampton Agricultural and Mechanical College. Mechanical instruction in Hampton Institute. Trade school at Hampton. Graduates of the Hampton Institute. The Tuskegee Institute. Manual training at Tuskegee. The inevitable tendency toward improved manual training. Manual training in the public schools. Wages of negro mechanics. Negro bricklayers. Negro mechanics and the labor unions. White employers prefer white mechanics to negroes. Abundant supply of negro workingmen. General standing of white mechanics lowered by negro competition. Industrial schools for the whites. Principal manual labor institutions for the whites. Character and work of the industrial schools. Manual labor instruction in the technical schools.

XII PRODUCTS OF HAND AND MACHINE—(CONTINUED) 169–182

Cotton manufacture the South's chief industrial development. Few cotton factories during slavery period. Low price of raw material a controlling reason in establishment of Southern cotton factories. Increase in number of Southern mills and spindles. Growth of capital invested. Increased consumption of raw material. Comparison of Southern with Northern mills. Local cotton consumption stimulates price of raw material. Tendency toward local government of the price of cotton. Abundant water power and labor supply. Streams of the Atlantic and Gulf slopes. Water powers of Virginia. Of North Carolina. Transmission of electrical power from the Yadkin Narrows. Water powers of South Carolina. Of Georgia. Of Alabama. Unutilized water powers. Electrical power. Manufacturing towns of the South.

CHAPTER PAGES

XIII PRODUCTS OF HAND AND MACHINE—(CONTINUED) 183–203

Labor supply for Southern cotton mills. Female operatives. Opportunities offered the poor whites by the cotton mill. Labor organizations. Why labor unions are not strong among the mill operatives. Child labor in Southern cotton mills. Factory schools. Hours of work in the mills. Southern and Northern wages compared. Why Southern operatives are content with low wages. Average wages. Textile instruction. Clemson College and other textile schools. Cotton fabrics manufactured in the South. Equipment of the Southern mills. The relative advantages of Southern and Northern manufacturers. The question of freights. The field of cotton manufactures divided. Conditions that point to Southern supremacy in cotton goods. Cotton factories largely established by local capital.

XIV PRODUCTS OF HAND AND MACHINE—(CONTINUED) 205–217

Woollen manufacture in the South. Cotton seed products. Exports of cotton seed oil. Peanut oil. Its quality. Manufacture of iron in the South. The Birmingham district. Advantages of Southern States in the manufacture of pig iron. Output of pig iron. Advantages possessed by the North in the manufacture of pig iron. Need of Southern manufactories for the production of finished iron goods. Iron and steel manufacture in the South. The Ensley steel works. Significance of Southern steel manufacture.

XV PRODUCTS OF HAND AND MACHINE—(CONTINUED) 219–229

Importance of the substitution of coke for charcoal. The first coke furnace in the South. Coke output of the principal States. Shipbuilding in the South. Newport News shipyard. Its immense drydock. Maryland shipyard. Richmond shipyard. Woodworking establishments in the South. Relative neglect of the manufacture of wood. Recent development of furniture making at High Point, North Carolina. The Southern clay product. Extent of the brick, tile, and pottery industries. Tobacco manufactures of Virginia. Of North Carolina. Of Kentucky. Of Florida. Of Maryland. The influence of the great controlling corporations on the distribution of tobacco. The distilleries of the South.

CHAPTER PAGES

XVI GROWTH OF SOUTHERN CITIES . . . 231–249

Expansion in urban population. Causes of removal from the rural districts. Railways and the growth of Southern towns. Solid growth of the Southern cities. Population of Southern towns. Baltimore—Its growth; contribution to Southern progress; resources of its financial institutions; educational establishments. Richmond—Its population; causes of its recovery from the devastation of the War; leading industries; transportation facilities; bank deposits and clearings; educational institutions and monuments. Norfolk—Manufactures, railway and shipping facilities; as a cotton port and peanut market. Other towns of Virginia and their industries. Largest centres of population in Virginia. Cities of West Virginia. Wheeling. Cities of North Carolina. Wilmington. Absence of large cities in North Carolina. Cities of South Carolina. Charleston. Columbia. Cities of Florida. Cities of Georgia. Atlanta—Population and wealth; public institutions. Savannah—Public improvements. Manufactures of Georgia's principal cities. Cities of Alabama. Birmingham—Its growth and wealth; public improvements. Manufactures of Alabama cities. Cities of Mississippi. Cities of Tennessee. The population and manufacturing importance of Memphis, Nashville, Knoxville, and Chattanooga. Cities of Kentucky. The commercial supremacy of Louisville. Cities of Louisiana. Manufactures of New Orleans. Cities of Texas. Cities of Arkansas. Marked improvement in architecture of Southern cities. Water supply. Public parks. Sewerage. Financial credit. Expositions in Southern cities.

XVII SOUTHERN EXPORTS AND IMPORTS . . 251–262

The leading Southern export cities. Value and expansion of Southern exports. Tonnage of vessels engaged in foreign trade. Causes of increased exports from Gulf cities. Cotton shipments. Exports of corn and wheat. Of hog products. Of flour. Exports of Baltimore and New Orleans. Exports of Newport News. Its grain elevators, piers, and lines of steamship. Influences injurious to export trade of the South. Railway manipulations. Advantageous position of New Orleans. Second imperial city of the Union. Southern ports and the Isthmian Canal. The Oriental trade. Countries to which Southern exports are consigned. Articles of merchandise exported from Savannah. Domestic exports and coastwise trade of Savannah. Domestic exports of Norfolk.

CHAPTER PAGES

Southern imports. Value of interior consignments. Value of Southern imports. Advance in value of Southern imports.

XVIII FINANCIAL FACILITIES 263–279

Prosperous condition of Southern banks. Southern agriculture not promoted by the National Banking Act. Cotton manufacture stimulated thereby. Reasons for the relatively fewer banks of the South. Number, capital, and deposits of Southern national banks. Number and resources of national banks by States. Financial growth of Texas. Relative increase in the number and capital of the national banks of the Union. Extraordinary increase in Texas. New national banks chiefly established in smaller towns. Leading Southern national banks and their resources. Summary of their number and resources. Total number of State banks. Savings banks. Fewness of Southern savings banks explained. Private banks. General banking resources of the South in 1901. Estimated present banking resources of the South.

XIX TRANSPORTATION FACILITIES 281–291

The first railways in the South. Southern railway trackage in 1860 and 1879. Total mileage constructed between 1880 and 1891. Extraordinary railway construction in Texas. Railway earnings. Increase in passenger and freight traffic. Trunk lines. Motives of consolidation. Rate cutting. Local effect of consolidation. Physical benefits of consolidation. Consolidation tends to build up territory. Policy of the railway system. Grouping of the Southern railways. The longest Southern railway. Railway facilities in each Southern State.

XX TRANSPORTATION FACILITIES—(CONTINUED) 293–306

Water competition. The base rate. Principle of the long and short haul. Basing points. Effect of the basing point principle. "Milling in transit" rates. Floating cotton rates. Why the long and short haul principle is not strictly enforced in the South. Freight rates per ton per mile. Western manufacturers at a disadvantage. Advance in Southern freight rates. Effect on freight rates of competition among Southern railways. Southern railway and steamship associations. Effect of Interstate Commerce Act. Southern classification committee. Rate-making organizations. Electric railways. Improvement of highways. Special enterprise in road improvement in the Carolinas.

CHAPTER PAGES

XXI THE SOUTH AS A WINTER RESORT . . 307–318

The South Atlantic seaboard the Riviera of the New World. Convenient and luxurious train service. The "Land of the Sky." Asheville. Linville. Southern Pines. Pinehurst. The "Sapphire Country." Lake Fairfield. Aiken, South Carolina. Summerville, South Carolina. Winter resorts of Georgia. Thomasville. Winter resorts of Florida. A tropical region. St. Augustine. Palm Beach. Miami. Winter Park. Belle Air. Tampa. Hunting and fishing preserves on the islands of the South Atlantic seaboard. Southern summer resorts. Patronage of Southern summer resorts. Health resorts in the Appalachian Range. Mineral springs. A notable combination for invalids and pleasure seekers.

XXII EDUCATION 319–331

Former obstacles to popular education in the South. Esteem in which Old South held education. The old field schools. The poor whites. Attitude of public men toward illiteracy in slavery times. Jefferson's plan for Virginia. Schooling of the indigent poor of Virginia. Public schools previous to 1860. Imperfect public school systems. System of public schools inaugurated throughout the South. Constitutional provisions for public education. New system of public education suggested by the old. New conditions prevailing in the South. Success of public education in the South under the new conditions assured from the beginning. New conditions more favorable to public education.

XXIII EDUCATION—(CONTINUED) 333–342

Educational provisions in the new constitutions. Permanent school fund of West Virginia, Louisiana, Arkansas, Maryland, Florida, Texas, Alabama, Georgia, South Carolina, Mississippi, North Carolina, and Virginia. Annual taxation in support of public schools. Special provision in some States. Management of public schools. Boards of education. State and county superintendents. The school age. Mixed schools. General attitude of the South toward the public school system. No race discrimination in use of school funds.

XXIV EDUCATION—(CONTINUED) 343–354

Why compulsory education is not general in the South. Southern illiteracy in 1900. Decline in extent of Southern illiteracy. One cause of great illiteracy in the South. Obstacles to be overcome in reducing illiteracy. School population

CHAPTER PAGES

of the South. Length of school term. Length of term and attendance in the different States. Average number of day's instruction to the pupil. Average number of days of attendance to the enrollment. Number of teachers. Proportion of male and female teachers. Expenditures for the public schools. Public high and normal schools. Proportion of schools and pupils to each State. Proportion of male and female teachers in high and normal schools. General summary of educational progress in the South. Private secondary and normal schools. Number of Southern students receiving higher education. Relative position of the States in higher education. Sources of income. Value of the plants of the higher institutions.

XXV EDUCATION—(CONTINUED) 355–364

Mixed schools prohibited. Mixed schools would destroy public school system. Voluntary separation of the races. Financial effect of separate schools. Illiteracy among Southern whites. Effect of educational qualification in suffrage laws. Proportion of children in Southern white population. Attendance and enrollment of white children. Number of white teachers. Proportion of teachers to pupils. Effect of small salaries. Female teachers. Nepotism. Influence of local politics. Interest in public normal college. Increasing demand for normal graduates. Public normal institutions in different States. Private normal schools and colleges. Schools and pupils in different States. Summer normal schools. Courses of instruction in a great summer school. Instruction in local summer schools.

XXVI EDUCATION—(CONTINUED) 365–377

Institutions of higher education for the whites. Condition of the older institutions. Sacrifices to secure an education. Denominational institutions. Private high schools and academies. Higher educational institutions in the different States, sectarian and non-sectarian; their enrollment, teaching staff, and the income and property of the State and endowed universities. Summary of institutions and their resources. Institutions for the higher education of white women. Relative position of the colleges for white women. These are chiefly under denominational control.

XXVII EDUCATION—(CONTINUED) 379–391

Education of the negro. Discrimination against the negro in the use of school funds discountenanced. Expenditure on education of the negro. Distribution of school fund in South

CHAPTER PAGES

Carolina as typical of entire South. Relative attendance of white and black children in the public schools. Average attendance of negro pupils. Average daily attendance of white and black pupils in the different States compared. Average number of white and black pupils to the teacher. Public high schools for the negro. Number of teachers and pupils in the high schools. Negro teachers for negro schools. Public normal colleges for negroes. Tuskegee Institute. Booker T. Washington. Academic department of the Tuskegee Institute. Normal schools for negroes in other States. The Hampton Institute. The policy of the Institute. Number of normal students in private institutions. Summer normals and institutes for negro teachers.

XXVIII EDUCATION—(CONTINUED) . . . 393–403

Private academic schools for the negro. Number of negro students in private institutions of the higher grades. Number of private institutions with collegiate courses. The work of the religious bodies in the higher education of the negro. Property owned by negro colleges. Endowment funds of negro colleges. Benefactions and bequests. Number of negro professional students. Students in theology. Negro preachers, lawyers, physicians, and dentists. Professional training of negro women. The Peabody fund. The labors of Dr. Barnas Sears. Aid to normal colleges. The Peabody College at Nashville, Tennessee. Distribution of the Peabody fund income. The work of Dr. J. L. M. Curry. The Slater fund. The work of the Southern Education Board.

XXIX LITERATURE 405–419

Southern literature of the slavery period. Achievements in intellectual fields. The South far behind the North in literature. Simms and Kennedy. Southern lyrics. Lack of historical writers. Consideration of Southern literary barrenness. Abundant motives for literary activity. Absence of literary centres the most probable cause of lack of literary production. Effect of urban growth. Field for talents of all kinds. Conditions now favorable to literary activity. A new group of writers. Works of recent novelists. A special field. Works of universal interest. Unartificial manners and character. Longstreet and Thompson. New influences at play. Poetical product of the South. Historical writers still few. A noteworthy exception. Some excellent biographies. Alexander Brown's *Colonial History*. Journalism.

CHAPTER PAGES

XXX Social Condition 421–435

Social changes following abolition of slavery. A complete reversal. Old social system. Basis of the old social life. Engrossment of the soil. Social effect of the engrossment of land. The great landed proprietor. Additions to the upper social ranks. Absence of a common social centre. The plantation home. Family ties. Hospitality. Lower ranks among the whites. The first land patents. The small landowners. The "po' whites" of the highlands. Their condition and opportunities. Personal relations of the higher and lower classes. Pride of the small owners. Their general illiteracy. Of sturdy character. Ruin of the higher planting class by the War. Economic changes have benefited the rural white population. Opportunities created by manufactures. Openings afforded by trades. New social order not a satisfactory substitute for the old. Present social condition of the rural white population. A general social equality. The present tendency. The descendants of the old rural gentry. Importance of local centres. Emigration to the cities. The court house towns. No disposition to return to a country life. Similarity of the social life of the North and South. Seats of wealth and culture. The material spirit.

XXXI Political Condition 437–453

Local government and national relations. Peaceful local administration. The two races. Lynching of negroes. Rapes by negroes. Why rape occurs so frequently. Finances. Debts of the different States. Assessed valuation and State tax rate. Average tax rate. A liberal public spirit in education. Southern political ability. Causes of its decline. Ante-bellum group of Southern statesmen. The plantation as a political school. First political training. Political promotion. Effect of the attacks on slavery. Breaking-up of the large plantation system. The hustings as a political school. The new leaders. Maintenance of white supremacy. Recollection of the Reconstruction Era. Policy of the negro voters. Negro suffrage destructive of the South's welfare. Suppression of negro votes. Obstruction of negro suffrage condoned. Change in the attitude of the North. Suffrage law of Mississippi. White vote reduced in Mississippi. Suffrage law of South Carolina. A qualification applicable to both races. White vote reduced in South Carolina. Suffrage law of Louisiana. The "grandfather clause." Reduction

CHAPTER PAGES

in number of voters in Louisiana. Suffrage laws of North Carolina and Virginia. An advance in public sentiment. A double suffrage qualification—education and property.

XXXII General Summary 455–472

Kernel of Southern achievement since 1876:—*Subdivision of land.* Neglected aspect of the Southern country. The change that must come. Immigration and subdivision. Effect of subdivision on growth of negro population. *Diversification of agriculture.* The trucking interests. Horticulture and floriculture. Effect of manufacturing growth on agriculture. Of the growth of cities. Of increased number of railways. All supplies drawn from the farm. *Growth of manufactures.* Southern hostility to tariffs. Comparative indifference of the Old South to manufactures. The South's various manufactures. Her natural resources. Draft for outside consumption. Development of every department of industry. *Extension and consolidation of railways.* Rapid development of the system. Electric railways. Railway consolidation. Advertising work of the railways. Public hostility to railways abating. *The spread of education.* A noble chapter of Southern history. Far-seeing educators. *The more rapid expansion of the white than of the black population.* The black population the single cloud over Southern prosperity. Greater increase in the growth of the white population. Competition between the whites and the negroes. Fate of the negro in the balance. *Restriction of the suffrage.* Political antagonism between the races eliminated by the limiting of negro suffrage. A blow at manhood suffrage. Restriction of the ballot an extraordinary advantage. Condition of the South at the end of the War, and at the close of Reconstruction. Greatness of the regenerated South.

Appendix I 473–474

Progress of twenty-five years of public schools.

Appendix II 475

Southern agricultural progress in twenty years.

Appendix III 476

General banking resources of the Southern States, June 29, 1901.

PAGES

APPENDIX IV 477
Exports of merchandise from Southern ports, 1890 and 1901.

APPENDIX V 478
Value of Southern imports, 1890 and 1901.

APPENDIX VI 479
Estimated growth of the South in material wealth, 1880 to 1900.

CHRONOLOGICAL TABLE 481–488

LIST OF ILLUSTRATIONS 489–491

THE

RISE OF THE NEW SOUTH

BRUCE

REESE LIBRARY OF THE UNIVERSITY OF CALIFORNIA

CHAPTER I

POPULATION

When, in 1876, the last Federal soldier stationed in the South to overawe the white population was withdrawn, that part of our common country immediately began to breathe freely again. During sixteen years, it had been beset by enemies, either as invading armies striving to conquer it, or as robbers seated in its places of authority and contending like so many foul birds in the division of the small remaining spoil. With the last receding gleam of the Federal bayonets, the period of chaos and submersion came to an end in every part of the Southern States; it was over forever, but the calamitous inheritance from a devastating war, and a political régime even more destructive, could not terminate all at once; the poisonous growth that had sprung up could not be cut away in a night, or the malignant influence spread abroad die away in a day. A decade was to pass before the South would give unmistakable signs of a new birth of prosperity in every department of industry. The period between 1880 and 1890 is the most remarkable in its recent history, for it was in this interval that the Southern States really shook off for the first time the frightful after effects of the years of War and Reconstruction.

Of War and Reconstruction, by far the worst consequences, as affecting the period which immediately followed, were the purely economic; the moral influences descending from those terrible times were, from many points of view,

the greatest advantage enjoyed by the Southern people at the threshold of their new career. War and Reconstruction had hurled ruin upon every material resource of the South except the fertility of her soil, which remained as capable as ever of producing the great staple crops; War and Reconstruction had swept away the accumulated wealth of the Southern States in all its varied forms; but there was one thing which not even they, besom-like in character as they were, could destroy, namely, the moral qualities of the people. War showed to all the world that only a vast disproportion in numbers and inexhaustible resources could conquer that people in the field; Reconstruction proved that their souls could not be shaken or cowed by political misfortune the most humiliating, or economic adversity the most appalling. War prepared them to endure with an undaunted spirit all the calamities of Reconstruction; in its turn, Reconstruction, by planting in them an undying determination to resist and overcome the terrible evils of their situation, in reality prepared them to meet the new social and economic conditions with a keener energy and intelligence when once they had secured absolute control of their own affairs.

There were two influences which were especially powerful in helping the Southern whites to pass successfully through the ordeal of Reconstruction: first, their profound sense of superiority to the race which had been hoisted over them politically; secondly, their own complete homogeneity as a people.

There had been no immigration of consequence into the Southern States during the last fifty years of slavery. This fact was due to a number of causes, the chief of which were: First, a deeply-rooted prejudice elsewhere against slave institutions; secondly, the presence in the persons of the slaves themselves of an ample number of agricultural laborers; thirdly, the paucity of manufactures, and the resulting absence of the diversified employments to which Northern and foreign immigrants would, by their previous training, have been peculiarly adapted. There would not

have been room in the Southern States for the stream of aliens who poured over the vacant prairies of the West, even if they had landed on the shores of America in full sympathy with slavery and the social order which it supported. The growth in numbers of the Southern white people was the growth of the original English, Scotch, and Scotch-Irish groups of population—a stock which, as early as 1800, had become as thoroughly homogeneous as the present population of France or England. The homogeneity of the whites was essentially complete. In a measure, they, by passing immoralities, destroyed the racial purity of the slaves; the slaves, on the other hand, preserved the racial purity of their masters by raising up a great barrier against that mighty but promiscuous tide, which, for so many decades previous to 1860, rolled in upon the United States, and made of the people of the North and West a composite people.

War and Reconstruction served only to strengthen the homogeneity of the people of the Southern States, not only by practically barring out or discouraging all foreign immigration, but also by welding the native whites into the most perfect oneness for the preservation of all that they cherished. The enormous growth of the South in every element of national wealth since 1876 is the achievement of this homogeneous population. For the tide of foreign immigration has not even yet set in in a great flood, though the institution of slavery has been dead for nearly forty years, and the era of Reconstruction ended a generation ago; it has not set in strongly, though the Southern States in every branch of their interests are now fully in touch with the controlling influences in the world at large. The explanation is obvious. In spite of the remarkable growth in their manufactures of all kinds, these States continue to be a vast agricultural community. In the production of cotton and tobacco, and in every other department of crude labor, the negro, owing to his willingness to accept lower wages and his perfect contentment with the humblest manner of life, is able to compete successfully with the white man from Europe or the

North. On the other hand, the most indigent class of native whites has so far furnished an ample number of operatives for the new cotton mills of the South. It is due to the combination of these two facts that the foreign born population of the Southern States remains relatively so small.

While the native population of the South has, in the course of the last two decades, added seven millions to its number, the foreign born population has added only ninety-seven thousand. In 1900, the native inhabitants formed 97.7 per cent of the Southern communities; the foreign born only 2.3 per cent. The population of foreign born was even smaller in 1900 than in 1890—in 1890, the percentage of natives was 97.6, and of foreign born 2.4. On the other hand, in the North Atlantic States, the percentage of foreign born, in 1900, was as high as 22.6, and in the Northwestern States, embracing the region as far north as the Dakotas and as far west as Kansas, it was 15.8; while in the group of commonwealths lying further toward the west and northwest the percentage was as much as 20.7.

In four of the Southern States, namely, Louisiana, Kentucky, Mississippi, and South Carolina, the foreign born population at the present time is not merely smaller relatively to the native than it was twenty years ago—it is absolutely smaller; over one hundred and thirty thousand in number in 1880, it was in 1900 less than one hundred and sixteen thousand. Florida, Maryland, and Texas alone show an increase of over ten thousand. It is only in Texas that the numerical growth of the foreign born population has been remarkable; there the increase has mounted up in twenty years to over sixty-five thousand, a condition explainable by the fact that a large part of this great State was at the beginning of that period a virgin territory which offered as many advantages to settlers as the prairies of the Middle West.

Not only is the foreign born population of the Southern States smaller proportionately to-day than it was twenty years ago, it is also smaller proportionately than it was in

1860, when slavery was bringing to bear such a powerful influence to divert the stream of foreign immigration toward the West; in that year, the Southern native population was computed to be 6,798,698, and the foreign born 383,470, about one hundred and thirty-six thousand less than it was in 1900, while by 1900 the native population had increased to over twenty-two million in number.

The numerical smallness of the foreign born population of the Southern States is not due to any prejudice or hostile feeling among the native whites which would throw obstacles in the way of immigration; on the contrary, for many years there has been a strong popular sentiment in favor of encouraging immigration of the best class, whether from Europe or the North and West; and this sentiment has grown with the increasing inefficiency of negro labor, and the diversion to the cotton mills of a large number of white persons who had previously obtained a livelihood by working for wages on the farms. The difficulty of profitably cultivating great tracts of land with hired labor has made the principal landowners look with approval on all efforts, whether of the State, private individuals, or corporations, to bring into the community a class of small farmers who will purchase a share in the soil. Every Southern commonwealth has now a bureau connected with its agricultural department, which aims to encourage immigration by every means in its power. A very extended advertisement for the same purpose is done by local real estate firms. The great consolidated railway systems of the South are especially active in attracting settlers; along their lines are vast reaches of country, only sparsely inhabited and partially cultivated, which offer the amplest room for millions of additional people to engage in intensive farming. These railways have established immigration bureaus that seek to bring about the thicker settlement, not of one State merely, but of a broad tier of States—not of one community, but of a series of communities, spreading from the Potomac in the North to the Rio Grande in the South.

It is through these different agencies chiefly that the Southern States in the future will obtain their greatest number of European, Northern, and Western immigrants; and as the opportunities for diversified employment are rapidly enlarging in these States, it is not improbable that the next two decades will show a remarkable increase in the foreign born population, drawn thither by the prospect of establishing permanent homes.

At present, it is not simply the difficulty of competing successfully with the negro that keeps the foreign laborer out of most of the Southern rural districts. The sparseness of the white population in the great majority of these districts makes the life there a lonely one for men and women accustomed to the village communities of Europe; above all, this sparseness cuts their children off from many school advantages which they would enjoy if they were citizens of the Northern or Western States. And these drawbacks discourage the small foreign farmer as much as the foreign laborer who seeks a new home in the South.

It has been found that the best way to ensure success for immigrants to the Southern States is to establish them in colonies on separate tracts of land of great extent; in this way, the seclusion of the life in the Southern country is done away with, and schools and churches are made convenient for every one among the new settlers. Several colonies of this kind have been recently planted in Maryland, a State which has been especially successful in obtaining large bodies of Swedes and Germans. A few years ago, twelve thousand acres lying together were bought in Caroline County for a colony of Dutch, who decided to leave the West where they had been seated at first. In 1901 alone, nearly five thousand acres were purchased in Maryland by persons who, for the most part, had come directly from Europe.

In Virginia, many Italians have found work in the trucking region around Norfolk, and the landowners of the Eastern Shore, in the same State, are now (1904) making a

combined effort to secure foreign labor as a permanent substitute for the unreliable negro labor upon which they have to depend at the most critical stage in the growth of their vegetable crops. It is quite probable that, in the future, colonies of small foreign farmers will be very successful in the tidewater section of Virginia, where their knowledge of intensive methods of cultivation will come at once into play. The beauty of the Piedmont country, the adaptability of its soil to stock raising, and the survival there of a remnant of the old rural society have drawn thither a considerable number of English people, most of whom have shown a preference for the counties of Fauquier and Albemarle.

A large body of Germans has settled at Ridgway in North Carolina; and at Valdese, in the same State, a colony of Waldensians from the Italian Alps has bought lands. This colony numbered as many as fifty families, who from the beginning have prospered greatly in their new homes. A company has been organized in North Carolina for the purpose of bringing into the State immigrants from all the German provinces of Europe. There are several colonies in the same commonwealth made up of the families of small farmers who have come in from the Northwest. In Granville County, South Carolina, there are to be found many French, Irish, English, Swiss, and German settlers. Several colonies of Northern and Western people have bought large tracts of land in Georgia, and have there set up prosperous communities. One of these colonies, composed of Federal veterans, has built up a flourishing town at Fitzgerald. Many Italians, in recent years, have sought homes in Florida in order to engage in the culture of the orange, an industry familiar to them in their native country. Several Swiss, German, and Scandinavian colonies have been planted in Kentucky; the Swiss settlement at Bernstadt is one of the most prosperous in that State. A colony of Finns has been established in Hickman County, Tennessee, while many Italians are engaged in truck gardening in the vicinity of Memphis. In Alabama, a Scandinavian

colony has seated itself at Thorsby, and a German colony at Cullman, near Birmingham. In Baldwin County, in the same State, the Italians have made two important settlements. A large number of persons of the same nationality have also sought employment on the sugar plantations of Louisiana, while in the southwestern part of that commonwealth twenty-five thousand immigrants from the North and West are engaged in rice culture. Texas, of all the Southern States, has the largest foreign born population, and there representatives of nearly every European nation are to be found. The counties of the Brazos region are chiefly occupied by foreign settlers. In the fertile country between Houston and San Antonio, a large German population is successfully engaged in agriculture, while there are several Italian colonies in the same division of the State similarly employed. In Travis and Williamson Counties, large bodies of Scandinavians have found homes. The Bohemians in Texas are computed at fifty-seven thousand. So far all efforts to establish foreign colonies in Arkansas have failed.

The impression which these different colonies have made in the States where they have been planted has been, without exception, favorable, and has greatly strengthened the popular desire for a larger immigration. They have almost invariably introduced the intensive system of culture, and set an example in employing the most skilful methods in the reclamation and use of the soil—a lesson so much needed in the Southern States, where there is such a vast area of impoverished lands. These foreign settlers have been particularly successful in truck gardening, fruit growing and dairying, for which occupations the room is steadily enlarging with the growth of local markets in the new Southern manufacturing towns, and with the expansion in the facilities for reaching the markets of the Northern cities. The foreign born population of the Southern States is certain to be increased in the future by these influences, but for many years to come, it must remain an unimportant

factor in the community as compared with the native population, both white and black.

One of the most vital aspects of the history of the Southern States since the end of the Reconstruction Era is the relative increase in the white and black populations, an aspect rendered all the more significant by the small additions so far made to the white through foreign or domestic immigration.

While in 1880, two decades ago, the negroes were in a majority in three of the Southern States, in 1900 they were in a majority in only two, namely, South Carolina and Mississippi. In 1880, the white population of Alabama ran ahead of the black by only sixty thousand; by 1900, the white majority had risen to nearly two hundred thousand. In Arkansas, the growth in the numerical disproportion between the races was almost equally favorable to the white people; and this was also the case in Virginia, West Virginia, and North Carolina. In the course of twenty years, the negro population of Virginia has increased only twenty-nine thousand; of West Virginia only seventeen thousand; of Kentucky only thirteen thousand; and of Maryland only twenty-five thousand. In South Carolina, the black majority in 1900 was only greater by eleven thousand than it was in 1880. On the other hand, the relative increase of the black majority in Mississippi was very large, a fact attributable to the coming in of immigrants from other Southern communities and not to any extraordinary fecundity in the original negro population of the State.

The more rapid increase of the white population, as compared with that of the black, is due to the following causes: First, thousands of negroes every year leave the South in search of work in the North and West; secondly, the emigration of the whites, which under the old system was so large in volume, has practically ceased; thirdly, a considerable number of new white settlers are annually coming into the Southern States; and finally, while the fecundity of the negro population as a whole is greater, perhaps,

than the fecundity of the white as a whole, the rate of mortality among the blacks, owing to their neglect or disregard of the most ordinary sanitary laws, is higher than among the whites, especially in the cities where the negroes are herded together in steadily increasing numbers. So abnormal is the death rate among them in all the Southern towns that there is now a general demand on the part of the Southern municipal authorities that the Census Report shall differentiate between the races in stating the rate of mortality for the Southern cities. In spite of the establishment of free dispensaries, and the appointment of district physicians, whose services are without charge; in spite also of strict regulations as to sanitary inspection from house to house, the death rate among the negroes gives no sign of declining. It is especially great among the children, but it is not narrowed to any age. Innutritious and scanty food, insufficient clothing and fuel in winter, but above all, unbridled sexual license, leading to destructive syphilitic and scrofulous complaints, have done as much as the crowding together of families in reeking tenements to reduce the black population of the towns.

In recent years, there has been a growing disposition among large numbers of negroes to drift northward and westward; and in this, they are influenced not only by a spirit of restlessness, but also by a natural desire to secure higher wages. According to the estimate of the census of 1900, the black population of the United States beyond the borders of the South had grown to about three hundred and fifty thousand; and each year this population is receiving additions, especially from Maryland, Virginia, and Kentucky. About one-twenty-fifth of the whole body of negroes in our country are now residents of parts of the Union, which, a quarter of a century ago, contained practically only white inhabitants. Every sign points to a steady increase in the number who will leave the South, though, on account of the growing opposition of the North to the introduction in her midst of this element of population, it is not probable

that the movement known as the "Exodus to Kansas" will be repeated on so great a scale.

When one considers the steady increase of the Southern blacks whose number has nearly doubled since the Proclamation of Emancipation was issued, and when it is recalled that this increase has gone on in spite of their violation of every hygienic law since their freedom was obtained, and also in spite of a considerable migration northward and westward—when we remember this, and weigh the problems raised by their presence in the South, the mind is deeply impressed with the Providence of the stroke that destroyed slavery. Had slavery continued, it is altogether probable that the number of negroes in the Southern States would, by the end of the nineteenth century, have trebled instead of doubled; and if the existence of the institution had been prolonged to the middle of the twentieth century, the growth of the black population would have been almost beyond calculation. The extraordinary care that would have been shown in preserving the health of the children; the attention which the slaves of all ages would have received in case of sickness; the repression of all the worst forms of viciousness which bondage would have enforced; the more nourishing food, warmer clothing, closer lodgings, and greater comforts of all kinds which would have been enjoyed by the vast majority of the race; the confinement of practically the entire black population to the rural districts, where the air and round of daily tasks would have been more wholesome—all these conditions would have promoted the growth of the population far more than the opposite conditions prevailing under freedom have done. Freedom has also led several hundred thousand to emigrate to the Northern and Western States, which would have been impossible under slavery. Slavery would not only have greatly quickened the growth of the black population—it would also have pent that population up in the Southern States. In time, the numerical disproportion between the slaves and slaveholders would have been as great as it was in the English West

Indies when emancipation was proclaimed in those islands. And what would have been the result? As in the West Indies, so in the Southern States, on the blacks receiving their freedom, the whites would have been submerged, and the whole country would have drifted into a barbarous thriftlessness as hopeless as that which has blighted the prospects of Jamaica and Haiti.

Not only has the abolition of slavery diminished, in a measure, the rate of increase of the negro population in the Southern States—it has also indirectly quickened the rate of increase of the white population. As will be shown later on, the economic tendency in those States under slave institutions was toward the engrossment of the soil in a few hands. The large planters were buying more and more the holdings of the small planters among their neighbors, who then, as a rule, emigrated either to the West or the far Southwest; in this way, Kentucky and Missouri were largely settled, and the population of all the Western and Southern States received heavy accessions. As the large planters acquired a greater proportion of the soil, the mechanical trades fell more and more into the hands of trained slaves; this had the effect of promoting the emigration of great numbers of Southern whites, who would otherwise have found employment as men skilled in the handicrafts.

As soon as slavery was abolished, the engrossment of land ceased, and a tendency toward the subdivision of the soil set in. Every year that has gone by since the close of the war has widened the room in the South for small white farmers, on the one hand, and skilled white mechanics, on the other; the pressure upon these classes to emigrate has steadily diminished as the chances of doing well where they were born have increased. The special inducements which the Western States held out to persons seeking new homes passed away with the preëmption of its arable lands, and the establishment of a social and economic system there under which it is as difficult to obtain success as under the similar system of the North. The South is now the only

part of the Union which offers advantages approaching in character those which the West offered as late as 1880, and this fact is now well understood by the Southern people themselves. In 1860, out of a population of 7,478,862 free persons in the United States born in the South, 924,235 had their homes in the Northern and Western States. The reports of the last two censuses disclose the fact that a large relative decline in the number of native Southerners residing outside of the Southern States has taken place, and every decade in the future will show a falling off more remarkable yet. Many of the most highly educated and talented young men of these States, discouraged by the condition of the South for many years even after the close of the Reconstruction Era, removed to Northern and Western cities, in order to pursue their professions with the greatest chance of success. Practically, the emigration of this important class has now ceased; the rapid growth of Southern manufactures has built up towns and cities in every Southern State, which offer an excellent field for the display of professional as well as business capacity. The gain to the South from this fact alone is enormous, for it is to this class—the professional and business men—that she must look for her wisest and most progressive guidance.

For many years to come, the Southern States must remain practically a rural community. The census of 1900 shows that 17,000,000 of the Southern people—10,000,000 whites and 7,000,000 blacks—live in the country, or in villages which do not contain 1,000 inhabitants. In the interval between 1890 and 1900, the rate of increase in the rural population of the South was 17.4 per cent, while the rate of increase for the rest of the Union was only 9.2 per cent. The greatest degree of expansion was observed in the States of Texas, Louisiana, and West Virginia.

Nevertheless, there has been a steady growth of the urban population of the Southern States; in the period between 1880 and 1900, the proportion of this branch of the general population rose in Maryland, Virginia, West Virginia,

North and South Carolina, Georgia, and Florida from one-eighth to one-sixth of the entire number of inhabitants; while in Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, and Arkansas, the advance was from one-thirteenth to one-tenth. It is in the towns that the largest number of foreign born persons are found; in the cities situated in the States embraced in the first group, they make up 12.46 per cent of the population, and in the cities of the second group, 10.93 per cent.

In the four principal manufacturing States of the South, —Alabama, Georgia, North Carolina, and South Carolina,— the most remarkable growth was in the cities which, previous to 1890, each contained less than 4,000 people; the percentage for Alabama was 22.55; for Georgia and South Carolina, 48.98 and 70.63, respectively; while for North Carolina it reached the extraordinary proportion of 164.94.

It is largely due to the steady growth of the different Southern villages, towns, and cities that the density of the general population has greatly increased in the course of the last twenty years. In 1880, there were 29.9 persons to the square mile in the Southern States; in 1900, there were 40.6 to the square mile. In Texas and Florida, the population to the square mile has nearly doubled, while in Maryland, chiefly on account of the expansion of Baltimore, it has risen from 94.8 to 120.5, and in West Virginia, owing to the development of the local coal interests, from 25.1 to 38.9. In North Carolina, on the other hand, the increase has been from 28.8 persons to only 33.3 to the square mile, a difference of less than five. In South Carolina, on one side, the difference exceeds eleven persons; and in Virginia, on the other, eight. In Kentucky, the difference is twelve persons.

REESE LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA



The cotton levee on Mississippi River at New Orleans, Louisiana.

CHAPTER II

PRODUCTS OF THE FARM

THE abolition of slavery did not destroy simply an economic institution—it destroyed an agricultural system which had been in existence in the Southern States since their first settlement, a period of nearly two centuries and a half in the history of the oldest of these States. As early as 1876—the end of the first decade after the close of the War—the economic results of free negro labor could be plainly seen, and every decade that has since passed has served only to bring the significance of these results into a more comprehensive view.

As we have already pointed out, the whole influence of slave institutions tended to widen the area of the larger plantations. The principal landholders were in the habit of buying all the small estates in their immediate neighborhood which were for sale, and thus pushing out their boundary lines; and this expansion in the case of every great plantation was only arrested by the division at the death of the owner of all his landed property among his heirs. Had the law of primogeniture been in force in the Southern States down to the abolition of slavery, the soil in these States would have been concentrated in almost as few hands as the soil of England is to-day.

There were several reasons for this tendency toward the engrossment of the soil under the old agricultural system: First, a community of planters who thoroughly understood

the capacities of land very naturally looked upon it as for them the safest and most profitable form of investment; secondly, the steady increase in the number of slaves on each large estate was constantly forcing the owner to create new room in which they could be used to advantage; thirdly, the exhausting effect on the soil of the methods of agriculture then in vogue made it necessary that there should be frequent additions of virgin lands to an estate until it became so large that its own woodlands would, when cleared of growth, supply what was required to maintain a uniform rate of productiveness; fourthly, the increasing herds of live stock also demanded wider ranges from decade to decade; and, finally, as the social importance of the planter was enhanced by the size of his landed possessions, he took a certain pride in extending his holdings.

Not one of these influences is now at work under the system of free labor. The exhaustive methods of agriculture, it is true, still generally prevail, but it is no longer necessary to open up new lands to maintain a plantation's productiveness; numerous varieties of chemical fertilizers are now used to restore the fertility of the soil. The difficulty of controlling free negro labor from the first was in itself sufficient not only to check all further tendency toward the engrossment of land, but also to create at once a tendency toward subdivision. For some years after the War, the members of the elder generation of planters, who had been accustomed to the old system, naturally held on to their large properties, and endeavored to cultivate them with laborers paid in wages. Those who were not compelled in a few years to break up their large holdings to settle debts contracted before or during the War, found, as time went on, that the attempt to farm or plant on a great, or even considerable scale, with free negro labor was unprofitable, and this soon led most of them to throw their estates on the market.

The new social conditions in the rural districts of the South have also had a powerful influence in promoting

subdivision. Not only did planting offer few pecuniary inducements to the sons of the old Southern rural gentry to remain in the country, but the entire destruction of the old framework of society made the life there distasteful to this class, who for two centuries or more had been identified with that life alone. There was, therefore, a strong disposition among the individuals of this younger generation to sell their large estates in land as soon as inherited and reside permanently in town.

The operation of these different influences has already resulted in a very extensive subdivision of Southern lands, and the process will go on more and more rapidly every year, with an ever increasing effect on the Southern people, not merely from an economic point of view, but also from a social and political one as well.

In the States south of Potomac and Ohio Rivers, except Arkansas and Louisiana, the number of farms in each one has doubled since 1870; in some it has trebled; and in others quadrupled. Omitting Texas from consideration as a community largely settled since the close of the War, we find that in the ten other commonwealths, the general average of increase in the number of farms has, in the course of thirty years, risen one hundred per cent. In the leading cotton States—Georgia, Alabama, and Mississippi—the increase has amounted to two hundred per cent.

Substantially the same acreage was embraced in these farms in 1870 and 1900. For the total acreage has increased only one-seventh in the course of thirty years, while the number of farms has doubled—a proof that subdivision, and not the patenting of public lands, as in Texas, and to a less extent in Florida and the wild mountainous districts of the South, is the cause of the number of farms growing so much larger.

One of the consequences of the tendency during the existence of slavery to engross land was that a vast area of soil remained unimproved. This unimproved soil was in the form of either open fields, formerly under cultivation,

or ground covered with forests of the first or second growth, which in time would be cut away for the creation of new cotton or tobacco lots as the fertility of the lands in tillage declined. The marked falling off in the area of unimproved soil is another proof of the extent to which the subdivision of ownership has already gone.

The area of the unimproved lands in Virginia, North Carolina, South Carolina, Florida, Georgia, Alabama, Mississippi, Tennessee, and Kentucky has been lessened under the new system to the extent of about 26,200,000 acres, one-fourth of the unimproved lands in 1860. In 1860, 36 per cent of the soil of Virginia was improved; in 1900, 50.7 per cent. The figures for these years in North Carolina were, respectively, 27 per cent and 36 per cent; for South Carolina, 28 per cent and 41.3 per cent; for Florida, 22 per cent and 34.6 per cent; for Georgia, 30.2 per cent and 40.2 per cent; for Alabama, 33.4 per cent and 41.3 per cent; for Mississippi, 32 per cent and 41.6 per cent; for Tennessee, 32.9 per cent and 50.4 per cent; for Kentucky, 39.9 per cent and 62.5 per cent. In these eight States of the South the area of improved lands has increased 13.1 per cent since the abolition of slavery.

The extent to which subdivision has already gone in the South is further illustrated by the fact that in five States, Virginia, North Carolina, Alabama, Tennessee, and Kentucky, which are selected as representative commonwealths the average number of acres in the farms in 1900 was only 88.4. In 1860, the average number in the farms of North Carolina was 316; in 1880, 142; in 1890, 127; in 1900, 101.3. With the same uniform gradations, the number of acres in the farms of Alabama fell off from 222 in 1870 to 129 in 1890, and 92.7 in 1900. From 388 acres in 1870, the farms of Georgia shrank in average size to 147 in 1890, and 117.6 in 1900. In the same period, the decline in the area of the average holdings in South Carolina was from 222 to 90. The same steady rate of subdivision from decade to decade is characteristic of all the

Southern States, with the exception of Florida and Texas, in which, for special reasons growing out of the live stock and fruit interests there, it has not been so rapid.

The Census Reports for 1900, as so far issued, enable us to discover approximately to what extent in number of farms, though not in number of acres, the negro has shared in this subdivision.

The number of white owners of farms cultivating their own lands in West Virginia, Virginia, North Carolina, South Carolina, Florida, Georgia, Alabama, Mississippi, Tennessee, Kentucky, and Texas was, in 1900, 878,101, and of negro owners, 125,671.

These figures perhaps represent quite closely the number of negro landowners in these twelve States, as it is not probable that many of the black proprietors, like so many of the white, are renting their estates.

It is impossible to state in number of acres what proportion of land the negroes are really acquiring, as it is only in a very few of the Southern States that any separate record of the property owned by them is kept by the authorities. Virginia and Georgia are, perhaps, commonwealths in which the progress of the race in obtaining an interest in the soil has been as great as in any part of the South. The statistics for Georgia since 1886 are complete, and the showing is one of extraordinary encouragement as illustrating what may be done by the blacks when their attention is diverted from politics, as has been notably the case in that commonwealth since the close of Reconstruction.

The gain in the amount and value of the property owned by negroes in Georgia for the period 1886–1900 is represented by an increase in number of acres of 33.8 per cent, the total being 1,075,073, and in value of same of 70.4 per cent, the total value reaching $4,274,569; of 11.9 per cent in value of horses, mules, and other live stock, with a total of $2,424,674; and of aggregate property of 62.1 per cent, the total being $14,118,720.

The total number of acres embraced in the farms of Georgia in 1900 was over twenty-six millions (26,392,057); in the course of thirty-five years, therefore, the negroes were able to acquire about one twenty-sixth of the entire surface of the State; and the significance of the achievement is only slightly lessened by the fact that the lands owned by them are generally the poorest in quality, and, consequently, the lowest in value in the commonwealth.

In Virginia, out of a total of 19,907,883 acres embraced in farms, the negroes, in 1900, owned 990,790, a more favorable showing than in Georgia, though, as in Georgia, the greater proportion of these lands is of small fertility, and was purchased at a very low price. Persons of this race have, however, acquired a considerable area of valuable soil in the region bounded by tidewater, where they have had unusual opportunities of accumulating money in oyster planting. In Accomac, Essex, King and Queen, Middlesex, Mathews, Northampton, Northumberland, Richmond, Westmoreland, Gloucester, Princess Anne, and Lancaster, their holdings had swelled by 1897 to 114,197 acres. Here, the total gain between 1896 and 1897 alone was as much as 5,379 acres. Of the 990,790 acres owned by negroes in Virginia in 1900, 368,840 were situated in the thirty tidewater counties, 570,278 in the forty-two counties of the middle division, and only 51,672 in the twenty-eight counties lying in the Great Valley. The total value of these holdings was $4,134,886, or an average value of about $4.20 an acre. The entire assessment of property in the possession of the blacks came to $12,464,377, an average of about $18 to the individual, as compared with an average of $13 in Georgia.

In Kentucky, where the white population is relatively to the black much larger than in Virginia and Georgia, the negroes have acquired only 171,570 acres in a total farming area of 21,979,422. In North Carolina, they own less than 4 per cent of the assessed valuation of property, and, therefore, contribute less than 5 per cent to the general taxes.

To the social and political consequences of the subdivision of Southern lands now going on so rapidly, we will refer later under a separate head. There are two economic results that call for comment here, though one relates more particularly to the evolution of the different Southern handicrafts than to agriculture pure and simple. Under the system of large estates prevailing in the South during the existence of slavery, it was entirely practicable for each plantation of any size to have its own trained mechanics, selected from among the negroes attached to it. Many of the plantations had not only workers of this kind in wood and iron —the carpenter, wheelwright, and smith—but also workers in leather and cloth. The varied interests of a single large estate required the constant services of such tradesmen to supply its own recurring wants. There was no need to go outside of its bounds to procure such workers, for there they were already, and as much a part of it as the men and women engaged in tilling the fields, or occupied with domestic duties under the roof of their master.

Under the new system, few estates are large enough to justify the owner in supplying the mechanical wants of his property through his own hired employés. The plantation spinner and weaver have disappeared, and the crossroads storekeeper, with his cheap goods, has taken their place. The blacksmith, the carpenter, the shoemaker, and the saddler have set up their little shops in the nearest hamlet, and there do work, not for a single plantation as formerly, but for the numerous small farms into which that plantation and others adjacent to it have been divided.

But the most important result of the subdivision of the large Southern estates is certain to be the general introduction of the intensive system of cultivation. Even at the present stage of this subdivision, more careful methods in tillage are used. As long as there were wide areas of woodland to supply the fresh lands required, it seemed a poor economy to preserve the fertility of the soil by means which, in the long run, were more expensive than the

removal of forests from ground that had never known the hoe and plough, or known them so long ago that a new growth of trees had had time to spring up. When, under the large plantation system, an old field became worn out, it was left to grow up in pines, which, as the years passed, gave way to oak and hickory. Gradually, the fertility of the soil was restored by nature sufficiently to make it once more fit for crops. On many of the great plantations in the times of slavery, the only surface remaining permanently under cultivation was the land situated in the valleys of the streams, where the alluvial deposit, constantly renewed by inundations, resisted the evil influence of the most careless tillage. In travelling through a large part of the South, one often saw in the midst of the most widespread forests, not only of pine, but also of hard woods of the second growth, the ridges left by the last corn, tobacco, or cotton rows, a silent memorial of an agricultural system under which the abundance of fresh lands remained always unexhausted.

It is computed that of the 24,131,377 persons residing in the fourteen Southern States in 1900, 5,087,997 were directly engaged in the cultivation of the soil. During the decade ending with that year, the number of persons so employed had been increased by 1,370,885. A very great proportion of Southern farm laborers are negroes; the overwhelming mass of that race—nine in every ten, it is calculated—obtain a livelihood by working the ground. In some parts of the South, they have a monopoly of the field in this respect. This is the case in those reaches of country where the large cotton plantations have not yet been entirely broken up, *i. e.*, that division of the Carolinas lying between the tidewater and the foothills, which forms about one-tenth of the surface of those States; the middle section of Georgia; the black belt of Alabama; the alluvial lands in Mississippi hugging the Yazoo and Mississippi Rivers; and the alluvial lands of Northern Louisiana, and the central region of Texas. From Maryland to Texas, they are employed in every branch of farm and plantation work—in

the production of wheat and corn, cotton, tobacco, rice, and sugar cane; in the cultivation of fruits and vegetables; and in raising live stock of every variety.

The impression of a large number of disinterested observers in all parts of the Southern States is that the efficiency of negro labor has steadily declined as the former slaves, trained under a more exacting system than can now be enforced, have gradually died off. One authority (Otken) sums up the present character of such labor in the following terms, the general accuracy of which is confirmed by the concurrent testimony of all persons who are sufficiently advanced in life to have had an opportunity of comparing the value of the negroes' work during the existence of slavery with the value of the work done by persons of the same race at the present time: "The value of the work done by older negro men is 50 per cent of what it was in the olden times; that of the younger negro men 30 per cent; and that of the negro women 20 per cent."

One of the increasing grounds of complaint against the younger negroes employed as farm hands in the South is their instability. The building of railways and other public works, and the opening up of coal and iron mines have enlarged the demand for crude labor. Higher wages are paid in these occupations than on the plantations. Not unnaturally, the prospect thus created of securing greater remuneration is drawing a vast number of young men of the African race away from the farms as soon as they get control of their own movements. They drift about the country in gangs in search of work that will assure them the highest wages, and to a certain degree become mere tramps. The money obtained by occasional jobs is generally spent in a few days in vicious amusements, or worthless purchases. The practical school of agriculture in which the young blacks were taught in old times, has passed away; the period of life at which the foundation of their former skill and efficiency in the field was laid is now the period in which the qualities of instability and unreliability

are most deeply implanted in only too many members of the new generation. One of the results of this restless and irresponsible youth and early manhood is that when the negroes drift back to the farms, as so many of them do as they grow older or marry, there is great difficulty in controlling and directing them. Their migratory instinct still remains. They object to close supervision and rebel against continuous labor and fixed tasks. An occasional holiday and bountiful fare, together with prompt payment of wages, and kindly and intelligent treatment, have a tendency to make them more contented and more useful laborers. But, however well disposed they may be, it is the general testimony of those who have observed them in the Southern States under present conditions that they are not naturally adapted to any work requiring prolonged care or nice culture, such as the growing of rare fruits and vegetables, flowers and trees; or exacting attention, like the handling of complicated tools and machinery; or special discrimination, like the breeding of fine live stock.

Under slavery, the most intelligent negroes were retained along with the mass of their race on the plantations. They became the trained mechanics, the foremen of the gangs, the leaders in the cotton and tobacco rows; their superior skill in shop and field was a constant object lesson to those of their color who were less gifted by nature in the use of their hands; and they undoubtedly exercised, apart from the direction of experienced white managers, an important influence in increasing the general efficiency of the slave laborers. Under the new system prevailing in the Southern States, the most capable negroes are in early life drawn away from agriculture into the professions of preaching and teaching. The vast multitude of the race, who stand on the lowest mental level of their people, alone are left in field, as the only walk in life in which they can earn a subsistence. The modern agriculture of the South has suffered severely, not only by the inability of landowners to train their negro laborers from an early age, but also

by this withdrawal of the most intelligent into other pursuits.

With all his faults and deficiencies as a man and workman, the negro is preferred to the native or foreign white hand by a large number of the Southern landowners, especially by those engaged in raising cotton. This class declares that he gives less trouble than a white man because content with less comfortable lodgings, with coarser food, and with smaller wages. It is thought by some Southern planters that it is only by negro labor, crude and untrustworthy as it is, that the Southern States have been able to maintain their position in the cotton markets of the world in the years when the price of the staple has declined to a very low figure. Nothing but a very cheap labor system encourages the cultivation of cotton at a time when it sells for five or six cents a pound; and it is necessary that cotton shall be produced at some profit even at that price if the South is to continue without interruption to be the greatest cotton bearing region on the globe.

Whether this view is strictly accurate or not, there can be no question that the negro's ability to subsist on the cheapest footing has done even more in agriculture than in the mechanical trades to fix the rates of wages in the South at a lower level than would otherwise be the case; and to that extent has increased the profitableness of producing the great staples. There is practically no disposition among the blacks to organize strikes, whether acting on their own initiative or that of white men; this characteristic has greatly enhanced their value as laborers under the new system, and, in a measure, will always tend to maintain their value as such. As long as there is a great mass of negroes in the Southern States not open to those influences which lead the whites to strike, white workingmen will be unable, certainly in the department of agriculture, to dictate to employers either as to higher wages, or shorter hours. Higher wages may come in agriculture, but they will come simply in obedience to the law of supply and demand. The

negroes' contentment in the meanest circumstances of life, and their disinclination to coöperate for their own advancement, have set the pace for the agricultural labor market of the South, to which the white men in the same field are forced to conform. Any influence which tends to raise the black laborer's standard of living and make him as exacting as the white laborer is certain to affect injuriously the prospects of the great bulk of the negroes in the South. All else being equal, the greater reliability of the white hand and his identification in race with his employer is sure to turn the balance in his favor. From this point of view, the ultimate influence of education on the majority of the Southern blacks is not unlikely to work to their economic detriment in the mass.

CHAPTER III

PRODUCTS OF THE FARM—(Continued)

At the present time, as may be inferred from what was stated in the preceding chapter, the wages of white and black agricultural laborers in the South are substantially the same. The general rule is to furnish the hand with board and pay for his work by the month, but payment by the day and by the piece also prevails; in all the cotton States, for instance, there are special rates for cotton picking, which amount on the average to forty-four cents for every one hundred pounds of the fibre. Wages, with or without board, have not altered very much in the course of the last twenty-five years.

Roughly speaking, the rate of wages for the Southern States at the present time is about fifteen dollars a month without board, and ten dollars a month with board. The average rate per day with board is about fifty-five cents; and about eighty cents without board.

If we compare the wages, with or without board, paid in the Southern States with the wages paid in the other States, it will be found that they are considerably lower. Since 1875, the average rate with board for all the other divisions of the Union has been about $15.34; and without board about $23.05. The average wages with board are nearly $5.50 more in these divisions, taken as a whole, than in the Southern States, and the average wages without board about $8.00 more.

The advantage in favor of the Northern laborer is, however, greater in appearance than it is in reality. In the

South, the laborer, as a rule, is employed for the whole year; in addition to his wages, he receives a house for his family's use, free of rent; is allowed as much firewood as he can burn, without any charge even for hauling; is permitted to cultivate a large garden patch, to raise poultry, and fatten a couple of hogs. These perquisites are not enjoyed by farm hands in other parts of the Union; and to the extent of them, the drain on the wages of the Southern laborer is diminished. The total amount in actual money paid by Southern farmers and planters in the form of wages was estimated, in 1900, to be nearly $82,000,000.

The greater number of the negro laborers own nothing except the rude furniture in their cabins. These cabins throughout the cotton and tobacco districts have only one room on the ground floor with a badly lighted garret above. Even a garret is often wanting. It is calculated by one authoritative observer in Georgia (Dubois), a State in which the blacks have done unusually well since they obtained their freedom, that, on the average, twenty-five negroes occupy ten rooms; and this crowding prevails throughout the South and is one of the principal causes of the low condition of morality that is found among individuals of the race. The cabins are generally built of unhewn logs, with a hole in the wall to serve as a window. Not infrequently, the floor consists of the natural earth. The room is heated by a fireplace, and, as a rule, contains two rude beds, a large chest with a lid, a few rough chairs, an unpainted table, a tin basin and wooden bucket, with a few coarse plates, knives and forks. The ordinary food of the family consists of bacon and corn meal.

There are two influences which have led to the general adoption of the tenant system in the Southern States.

First, the tendency toward the subdivision of the Southern lands. The prevalency of the tenant system is one stage in the progress of this subdivision; the owners of large tracts, finding it impossible to sell them at the figure desired, or lacking the necessary capital to cultivate them

themselves, or deeming it unprofitable to do so by payment of wages, have rented their estates to persons without regard to race. In many cases, such landowners till a part of their ground, and divide the remainder among tenants. On some of the Southern plantations, as many as one hundred tenants are to be found, but the average number probably does not exceed five or six.

Secondly, the prevalence of the tenant system has its origin largely in the peculiarities of the negroes of the new generation. They object, as we have already stated, to close supervision, fixed tasks, and continuous labor. As tenants, they are entirely free from supervision, and can work with as many intervals for rest or amusement as they wish.

The tenant system is of two kinds—first, that under which the rent is paid in money; and secondly, that under which the rent is paid with a share of the crop. It is estimated that the tenants who pay with a share of the crop are about double the number of those who pay in money, or the equivalent of money, a disproportion which was to be expected. In both cases, whether the tenant is a white man or a negro, he really occupies the position of an independent farmer, who produces his crop without the interference of his landlord; disposes of it himself in market; and is only responsible for the amount of his rent.

Payment in money is either in actual cash, or in so many pounds of cotton, not in proportion to the volume of the crop raised, which would be the share system, but in proportion to the area of land in possession of the tenant, and to be delivered even if the tenant has to buy it in the market. In Georgia, the money rent ranges from $1 to $5 per acre, or from five hundred to one thousand pounds of cotton for as much land as the tenant can cultivate with the assistance of one mule. In South Carolina, the rental never falls below $2 for an acre of fairly good quality, and sometimes rises to a figure as high as $9.30. The same is true of North Carolina. In Louisiana, the largest amount is $11.25,

and in Florida $20. In Alabama and Tennessee, the rental ranges from $2 to $4 an acre according to the fertility of the soil. In some parts of these States as well as in Arkansas, Texas, and even Georgia, the charge for rent is as low as fifty cents an acre.

The share system is naturally the one preferred by the tenants, as they are not, in case the crop proves a failure, or sells below the cost of production, responsible for a specific amount of money. The landlord bears his own proportion of the loss. The terms on which the soil is rented on shares do not vary materially throughout the South. In Georgia the landlord supplies the tenant with seed and storehouses for his crops, grants him free pasturage, and allows him fuel and a house without charge. The tenant furnishes the mule, and pays the cost of its keeping. The other expenses, including the expense of fertilizers, are equally divided between the two. When the crops are gathered, the landlord is entitled to one-fourth of the cotton, one-third of the corn, and one-half of the small grain; in addition, should he have advanced provisions of different kinds to the tenant, he is entitled to such a share of the tenant's proportion of the crops as will fully reimburse him. In the Carolinas, the landlord furnishes the tenant with ground, teams, farming implements, dwelling house, and storehouses, and also with fuel, several acres for a garden, and one-half of the fertilizers used in the cultivation of the soil. In return, he is entitled to one-half of the crops. In the tobacco region of Virginia, where the conditions are similar to those prevailing in the cotton region of the States further South, the general rule is that, where the landlord supplies the teams, implements, house, fuel, and the like, he is entitled to one-third of the crop. In Kentucky, on the other hand, if the landlord furnishes free of charge house, pasturage, garden, and firewood, he is entitled to one-half of the crop. In Louisiana, the rule is for the landlord to supply the tenant with a house and firewood, the necessary teams and their forage, while the tenant provides his own food and



Shipping oranges on Ochlawaha River, Florida.

REESE LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA

divides the crop. The rule in Tennessee is in substance the same.

In 1900 there were as many as 1,015,081 tenants in the South who either paid their rent in the form of actual money, or paid with a share of the crop. In other words, the proportion of tenants to farms was, in that year, nearly as one to two.

We are able to obtain the exact proportion which, in eleven of the Southern States, in 1900, the number of black tenants bore to the white.

The respective totals for West Virginia, Virginia, North Carolina, South Carolina, Florida, Georgia, Alabama, Mississippi, Tennessee, Kentucky, and Texas were: white cash tenants, 150,246; negro cash tenants, 233,493; white share tenants, 402,041; negro share tenants, 229,301.

The preceding figures show that the number of negroes in the South paying their rent in a fixed amount, whether money or the equivalent of money, is very much larger than the number of white persons; it follows that the number of white share tenants greatly exceeds the number of black tenants leasing on the like terms. The probable explanation of this disproportion is that greater reliance can be placed on the white tenant to produce a crop, and, therefore, with such a tenant, the landlord is more assured that his rent will be turned over in the share agreed upon. By requiring a tenant to pay a money rent, the landlord secures the right to distrain on the tenant's teams and household goods, if there is a failure from neglect or other cause to produce a crop.

When the war ended, the great difficulty was as to how to obtain the means to carry on the ordinary operations of the farm. The Southern States, with hardly an exception, soon passed lien laws to enable both landowner and tenant to secure advances. The landowner under these laws could give a lien on his acres, live stock, and other visible property in order to procure supplies from the commission merchant; the tenant of the landowner could give a lien on his mule

and household articles in order, in his turn, to procure supplies from his landlord. The lien laws went even further than this: the landowner was allowed to give a lien on the cotton or tobacco which was yet to be produced on his estate by himself, or to be delivered to him by his tenant as his share of the crop. In his turn, the tenant could give his landlord a similar lien on a crop yet to be planted, or at least yet to mature.

So far is this crop mortgage system carried, that it is the custom in some parts of the South to-day for the merchants making the advances to prescribe the area to be planted, and in doing so to allow ample room for profit in case of a partial failure of crops. The rate of interest on these liens is often as high as fifty per cent, and the negroes, whether landowners or tenants, suffer most from the system owing to their greater improvidence. They are especially inclined to go too deeply in debt to the local merchants, and the condition of many of them is not much removed from serfdom. Cotton is the only crop, as a rule, on which advances are made, since it is the crop which is most readily sold. As the negro is aware of this fact, he is tempted to cultivate a larger amount than he would otherwise do, and this is one reason for the overproduction of the staple in the South. It is, far more than any other product of the farm, the equivalent of actual money, and the more the landowner or his tenant can produce, the larger the quantity of supplies which the merchant will advance. The supply liens fall due during the first half of October; this forces practically the entire crop on the market at the same time, which naturally lowers the price. It is estimated that at least nine-tenths of each crop of cotton is sold subject to these supply liens, which, in the large majority of cases, benefit no one but the commission merchants who hold them. The high rates of interest which the cotton planters, whether tenants or not, have to pay not only diminishes their chance of accumulating money, but also prevents them from expending more for the improvement of their lands.

It is generally acknowledged that the working of the tenant system is very hurtful to the fertility of the soil. It is justly pronounced a stumbling block in the way of progressive and diversified farming, for under it there is no disposition to seek anything beyond a temporary benefit in the use of the lands. The contract, as a rule, is from year to year, and the tenant's aim is to draw as much from the soil as possible at the least expense. The great mass of the tenants, both white and black, are ignorant of correct methods of farming. Whether as the result of ignorance or neglect, there is a tendency in the rented farms of the South to deteriorate in a great variety of ways—the lands wear out, or are washed away, the fencing decays, the storehouses and barns fast go to ruin. There are few Southern landowners who do not recognize these evils of the tenant system, but they are led to adopt it by the difficulty of getting the negroes to work on a different footing. The management of black laborers under the new system is especially harassing and exasperating; many proprietors rent their lands to escape the worry of directing and controlling the hands they would, as cultivators of their own soil, be compelled to employ; and find in a share of a crop, which has entailed no expense or trouble to them, some consolation for the only too perceptible falling off in the fertility of their estates.

The lack of intelligent labor is the greatest evil which afflicts the Southern States under the new economic system. What are they doing in the way of agricultural education to remedy it?

First, as to the agricultural institutions for the blacks. There is not a State in the South without at least one institution in which they receive agricultural training, and in most of the Southern States, there are more than one. These schools are supported by annual appropriations made by the commonwealths, and, in many cases, by the Federal government under the terms of the Morrill and Hatch Acts, or by contributions from the Peabody and Slater Funds, and by income from tuition fees and other sources.

The parent and the model of all these institutions for the agricultural education of the negro is the Normal and Industrial School at Hampton, Virginia, a foundation to which we shall refer more particularly in our account of the manual and literary instruction of the race. It has over one thousand pupils, and while its primary object is to train for the profession of teaching, it requires each student to go through an agricultural course. The greater number of its pupils who do not graduate become farmers on their own account. Those who graduate and adopt teaching as their pursuit in life have had driven into them the idea that they must use the agricultural information they have acquired to the best advantage of the negro communities in which they settle. There are two model farms attached to the Hampton School, one of one hundred acres, and the other of six hundred. It has also an experiment station. The student is carefully instructed as to the character of different soils and all that relates to their improvement; and also as to varieties of plant and animal life. Many of the graduates of Hampton became teachers in the increasing number of semi-agricultural institutions for the negro in the South. The plan which this great school seeks to carry out is to establish throughout the Southern States wherever the blacks are congregated, foundations like those at Calhoun, Alabama, and Lawrenceville, Virginia, which are designed to be object lessons as to what can be accomplished for every negro countryside by following an intelligent agricultural system. The instruction begins with a kindergarten and rises to grammar grade. The boys are trained in agriculture and the girls in domestic service.

Hardly second to the Hampton School, whether in usefulness or reputation, is the Normal and Industrial College at Tuskegee, Alabama. This was founded by Booker T. Washington, the most distinguished graduate of the Hampton School, and was carefully modelled on that institution. It owns about 2,500 acres of land, one-fourth of which is in tillage. The laborers are students of the college. The

work in the laboratory of the college's agricultural department is largely directed to the testing of soils, fertilizers, and seeds, with a view of increasing the productiveness of Southern lands. The scientific knowledge thus acquired is carried into the practical operations of the college farm. The school owns a large number of cows, and the most improved methods of dairying forms one of its most important branches of instruction. Equal attention is given to stock raising. There is an extensive orchard and vegetable garden, in which the varieties of fruit and vegetables produced in that climate are cultivated in the most scientific way. The institution is fully equipped with agricultural buildings of the latest designs. In addition to an annual appropriation of $3,000 for general purposes, the State of Alabama now allows it $1,500 a year to meet the expense of the work carried on by the school's agricultural department. The State also contributes annually to the support of a second institution, in which an agricultural training is given to a large number of negro students. This is situated near Montgomery.

There is an important agricultural college for negroes at Griffin, Georgia. Louisiana also has an institution of the same kind, in which the boys are taught how to farm scientifically and the girls how to manage a model dairy. The State has already spent about $75,000 in erecting buildings for this school. There is a fully equipped college at Greensboro, North Carolina, and also at Orangeburg, South Carolina. The school at Orangeburg began its first session with one thousand one hundred students, and is filled to its utmost capacity. Both West Virginia and Kentucky have established colleges for the agricultural training of negroes.

The schools of the South for the agricultural education of white persons are among the most admirable institutions situated in that part of the Union, and every year sees their equipment enlarged and improved. Each State has an agricultural and mechanical college which was founded originally by means of the funds made available by the Act

of 1862. By the terms of this law, known as the Morrill Act, each State received a large grant of public lands, the proceeds from the sale of which were required to be held as a fund for the establishment and support of an agricultural college. By the provisions of the Hatch Act, passed in 1884, the Federal government allowed each State $15,000 per annum for scientific experiments in agriculture. This appropriation is largely used for the maintenance of the experiment stations connected with the State agricultural schools. The national appropriation for each commonwealth in 1901 was $25,000.

In addition to the funds thus obtained, each State of the South makes a large annual appropriation for the support of its own agricultural college. Many of them also contribute yearly to the maintenance of other institutions for the whites in which agricultural instruction is given. Thus in the State universities, as a rule, one department is devoted to this study. In Alabama, there is an agricultural institution in each congressional district carried on largely at the expense of the commonwealth. Some estimate can be formed of the number of white pupils who are receiving agricultural lessons in the South at the present time from the fact that in the eighteen schools partly supported by appropriations under the Morrill and Hatch Acts, there were 421 teachers engaged, in 1900, in instructing 6,600 students in the agricultural and mechanical departments.

As already stated, most of the experiment stations in the South established under the provisions of the Hatch Act, were made a part of the principal agricultural colleges for the whites and blacks. In the years 1899 and 1900 alone, $208,575 was expended in the support of these stations, and the chief portion of this large sum came from the national government; in consequence of this liberal income, the Southern stations have steadily added to their equipment the finest modern chemical and physical laboratories, and agricultural and horticultural buildings, as well as the most improved dormitories for students and residences for teachers.

The managers of these experiment stations have already done much to show what are the best methods to be followed in the Southern farm, garden, orchard, vineyard, stockyard, and dairy. They have carefully analyzed the different kinds of soils, pointed out the sorts of fertilizers that are the most suitable for each, and also what varieties of crops, and under what system of rotation. They have made a close study of the diseases of the great staple plants of the South—cotton, tobacco, rice, sugar cane, and the like—and of the numerous species of fruits and vegetables that are now produced there in such enormous quantities. They have made tests to find out the quickest and most thorough ways of getting rid of injurious insects and destructive weeds. They have investigated the composition of fodder stuffs, and determined those best suited to digestion. The diseases of domestic animals, the breeding of the finer kinds of horses, cattle, sheep, and hogs, bee culture, poultry raising, and the like, have received minute and prolonged attention.

The work of the North Carolina Experiment Station, established in 1877, is fully representative of what these stations are now doing in all parts of the South. At first, chemical investigation was its principal object, and it saved hundred of thousands of dollars to the farmers of the State by preventing frauds in the fertilizers offered for sale. It now has, in addition to its laboratories, an experimental farm and a weather bureau. The station is divided into: First, a chemical department; secondly, an agricultural department covering the entire field; thirdly, a botanical department for the study of seeds, grasses, etc.; fourthly, an entomological department for the examination of insect pests; fifthly, a horticultural department for experiments in fruits and vegetables; sixthly, a poultry department; and finally, a meteorological department, which issues a bulletin every week for the purpose of showing the effect of weather on the different crops.

Louisiana possesses three great experiment stations, and contributes $25,000 a year to their support:—First, the

State station at Baton Rouge, secondly, the station at Audubon Park, New Orleans, which is occupied primarily with the investigation of sugar cane, and incidentally with that of other semitropical crops; thirdly, the North Louisiana Station, which is devoted to diversified agriculture. The station at Audubon Park was first established by the sugar planters, and its record under the superintendency of William Carter Stubbs, one of the most distinguished agricultural investigators ever produced by the South, is unsurpassed in the history of the United States. The extraordinary progress in cane planting and sugar making in Louisiana is directly due to the influence of its experimental work.

In some of the Southern States, the State Boards of Agriculture have established local experiment stations in the shape of model farms. In each division of every one of these commonwealths there will eventually be a farm of this kind, which will be directed to showing the crops and manner of cultivation that are specially suitable for the soils of that division; and the knowledge thus obtained is to be spread abroad among the farmers of this particular area of country by means of weekly bulletins.

The work of the experiment stations is greatly increased in value by the Farmers' Institutes now held in all parts of the South under the direct patronage of the State governments and agricultural colleges, and whose object is to give the planters the full benefit of the scientific investigations that have been made in every branch of agriculture.

Maryland appropriates every year $4,000 to meet the expense of such Institutes. In Virginia, the professors of the State Agricultural College take a leading part in them. In North and South Carolina, similar Institutes are carried on under the direction of the Agricultural Departments, and are addressed by the professors of the State agricultural schools. Clemson College has been especially active in encouraging Farmers' Institutes. They are also held in all parts of Alabama; in the course of two recent years, twenty-five were held in twenty-one counties of that commonwealth,

and two thousand farmers through this means received instruction. One of the professors of the State Polytechnic School is regularly assigned to deliver addresses at these meetings. In Louisiana, the State Board of Agriculture organizes Farmers' Institutes every year, and in a total of fifty-nine parishes, fifty on the average hold such Institutes. The agricultural colleges of Florida and Mississippi are equally interested in encouraging meetings of this kind. The latter State contributes a considerable sum each year for the support of those held for the benefit of its farmers. And so does the State of Tennessee. The professors in the agricultural department of its State University are among those most conspicuously engaged in increasing the usefulness of the Institutes that are held in this latter commonwealth.

Every Southern State now possesses an agricultural department which is given up to the advancement of the interests of the farmers. A large majority of these States hold respectively an annual agricultural fair on a great scale, while the different divisions of each State have each a smaller exhibition representative of its special productions.

Under the system prevailing in the South before the War, the value of the artificial fertilizers used in the fourteen Southern States did not annually exceed $500,000; in 1899 alone, these States consumed artificial manures estimated to be worth $28,882,854. In recent years, the State governments have been exercising the strictest supervision over the different brands sold to planters, and the result has been that all those that were of a very inferior quality have been driven from the market. The Southern farmers have been only too anxious to avail themselves of this quick means of restoring for a season their exhausted soils; over one-half of the commercial fertilizers used in the United States ($53,430,910 is the total national expenditure on this account) is consumed in the South. So great is the dependence on artificial fertilizers that little effort as yet has been made in that part of the country as a whole to organize the

resources of the farm in a way to provide for the self-fertilization of the ground. Throughout the most productive areas of the West, and in a large division of the North, live stock and leguminous plants furnish the elements needed for the preservation of the soil, and to this ally the Southern States will turn when a more intensive and diversified system of agriculture has been generally adopted by them. In the meanwhile, the use of artificial fertilizers will enable these States to hold their place in the markets of the world.

Nowhere in the United States is it so necessary to show discrimination in the use of artificial manures as in the South, on account of the extraordinary variety in the composition of its lands. From Maryland around to the western line of Texas, there spreads a broad coastal plain formed of deposits left by the receding ocean, or brought down by the rivers. These are the lands most suitable for tobacco, rice, cotton, and vegetables. Back of this coastal plain lies a vast extent of soil created by the disintegration of the natural rock, which either remains in its original place on the slopes, or is washed down into the valleys of the streams. This area is best adapted to the growth of fruit and the cereals.

Not only must the character of all these lands be considered in the use of fertilizers, but the differences in the atmosphere must also be borne in mind. The interval between the sea and the foothills, where the rivers tumble over the last great ledges of granite, represents one zone of climate; between the foothills to the base of the mountains represents another; between the base of the mountains and the top of the Appalachians represents a third. All these conditions enter into the investigations of the Southern experiment stations, and in no respect has this work been more valuable than in testing the adaptability of artificial fertilizers to the special needs of each great division of the South, whether looked at from the point of view of its soil or its climate.

In 1889, a long series of experiments was made by the Kentucky station in order to find out the best fertilizer for the tobacco plant as grown in that State. It was discovered that muriate and sulphate of potash gave results equally good, and that nitrate of soda improved the quality of the leaf more than any other form of nitrogen that could be used in that soil and climate. The Maryland station soon followed the example of the Kentucky station; its series of experiments extended to every division of the State producing tobacco. In 1890, the Virginia station began a series of experiments to show the relative value of commercial fertilizers as applied to the Virginia plant; and two years later the experiment station of North Louisiana instituted a similar series to find out the manures best adapted to the tobacco plant of that State. Like experiments as to the proper manures for other staple crops have been made in all the Southern commonwealths and also experiments equally elaborate for the discovery of the best fertilizers for the restoration of different kinds of wornout soils. The South enjoys an extraordinary advantage in the possession of the great phosphate beds of Tennessee, South Carolina, and Florida, and these deposits have already contributed enormously to the productiveness of her lands.

CHAPTER IV

PRODUCTS OF THE FARM—(Continued)

In the course of the twenty years between 1880 and 1900 the agricultural wealth of the South, as represented in the value of land and improvements, increased from $2,290,364,321 in 1880 to $3,951,631,632 in 1900; and in the value of products of the farm from $660,131,452 to $1,271,654,273. Roughly speaking, the agricultural wealth of the Southern States nearly doubled in that interval.

Of all the products of the lands of the South, the one that has contributed most to the wealth of that part of the Union, and the one on which it is most dependent for its high position in the markets of the world, is cotton. In this great staple, the Southern States lead all countries in the quantity grown. One of the most important inventions in the history of mankind was that of the cotton gin, which has indirectly in less than a century increased the amount of cotton raised in the South, in the course of a single year, from a few hundred to many million bales. The largest crop recorded in the annals of the United States was that of 1898–1899, which reached a total of 11,189,205 bales, and ninety-seven per cent of this enormous amount was produced in the South. Of 25,421,000 acres planted in cotton in 1900, only 643,000 lay outside of the Southern States.

The crop of 1880 was 6,605,750 bales; by 1890, the crop had increased to 8,652,597 bales, and by 1900 to

10,425,000. The volume of annual production, it will be seen, has steadily grown, though if we examine a short series of years, it will be found to fluctuate very much, owing to sudden rises and falls in market value. The bale in use in the South at the present time is more bulky than formerly, which makes the annual crop really larger than it appears in comparison with the crops harvested twenty and even ten years ago.

As the volume of the annual crop has increased, the market price of the staple has declined. In 1880, when 6,605,750 bales were produced, the price by the pound was 9.8 cents; on the other hand, in 1898, when 11,189,205 bales were produced the price by the pound was 5.7 cents. In the total value of the two crops of $585,733,283, there was a difference of only $25,200,799 in favor of the crop of 1898, though nearly double the quantity of the crop of 1880. The crop of 1898 exceeded the crop of 1897 by 291,348 bales, and yet it sold for $14,000,000 less; the crop of 1899 was only 9,142,838 bales, and yet though 2,000,000 bales smaller in quantity than the crop of 1898, it brought $29,000,000 more.

In consequence of these fluctuations in the price of cotton, the area under cultivation in that staple has steadily drifted toward the virgin lands of the Southwest; the older soils of the Southern States are unable to produce cotton at a profit when the price declines to five cents a pound. In 1896–1897, the volume of the Texan crop was equal to 2,248,000 bales; by 1900–1901, it had risen to 3,809,000. In the course of these two years alone, the net increase in the Texan crop was 978,000 bales against an increase of only 64,000 for the other States of the South. The product for the two succeeding years shows a substantial decrease, but the estimated figures for 1904–1905 show a product of about 3,000,000 bales. The single commonwealth of Texas produced in that year not only about one-fourth of the whole crop of the United States, but also one-fifth of the entire annual crop of the world. The estimated yield of the

Southern cotton crop of 1904–1905 is 12,162,700 commercial bales.

During the fifteen years ending with August, 1902, it is computed that the total value of the cotton exported from the United States came to $3,467,000,000, an average for each year of $230,000,000. To this annual average must be added the sum which the Southern States have obtained from the sale of cotton to southern and northern mills. The thirty-nine crops produced since the close of the War, amounting altogether to 232,340,000 bales, have sold for $12,800,000,000, a sum equal to six times the value of all the slaves set free by the triumph of the Northern arms.

The demand for cotton in the markets of the world seems destined to increase as time goes on. The use of the fibre of the plant is steadily growing among all nations and peoples; in the interval of forty years between 1850 and 1890, the consumption of raw cotton advanced from 2,500,000 to 14,000,000 bales, and the next fifty years will probably see the consumption rise to 25,000,000 bales. It is only those States of the Union lying south of 39° latitude that are fitted in soil and climate to produce this great staple, and their capacity to do so is practically unlimited. The cotton region spreads over an area of 700,000 square miles, and as yet only about 5 per cent of this area is planted in cotton; it is not going too far to say, that, with an intensive system of culture, the South could produce 100,000,000 bales of cotton; and if the demand for the staple and the market price were together extremely encouraging, there is no reason to doubt that the annual crop would in time rise to this figure, enormous as it would be. In spite of the strenuous attempts on the part of several foreign nations to grow the cotton plant in their colonies in order to lessen their dependence on the supply from the Southern States, these States have continued to furnish sixty per cent of the staple used in commerce.

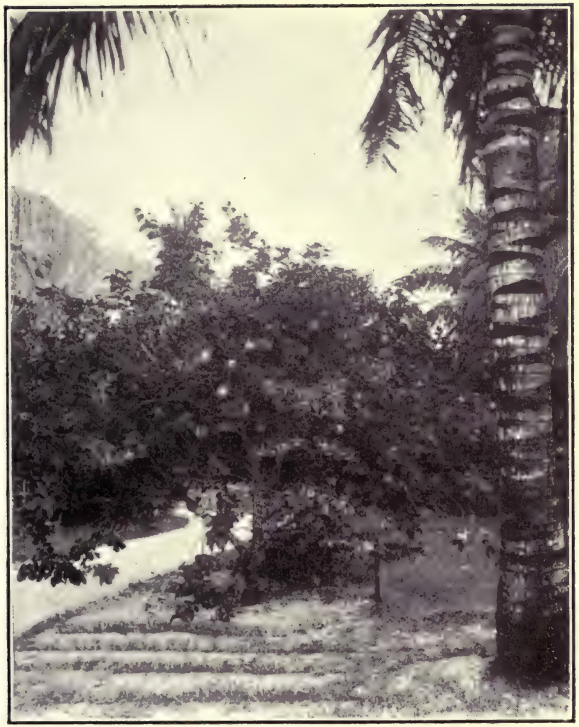
What is the cost of growing cotton under the present system of free labor? Like all other crops, cotton entails

a smaller outlay relatively, the more fertile the ground in which it is planted. The least expensive cotton crops produced in the South are raised on the alluvial bottom lands of the Mississippi River, and on the virgin prairies of Texas; no artificial manures are needed on such lands, and their volume of production is the largest. In 1896, a fairly average year, the National Department of Agriculture obtained statistics showing the cost per acre of growing the staple in the ten leading cotton States of the South, and also the rate of profit. For upland cotton, the total cost was $15.42; the total return, $19.03; the net profit, including the proceeds from the sale of both seed and lint, $3.61. The corresponding figures for sea island cotton were $21.95, $28.65, and $6.70. The average cost of producing a pound of upland cotton was about 5.77 cents, and of sea island cotton about 11.59 cents. In some parts of Florida, Texas, and Louisiana, it was found that cotton could be grown at a figure as low as $5.10, $5.40, and $6.55 per acre; in other parts of the same States, as well as in some parts of Mississippi, Georgia, and North Carolina, the cost rose to a figure as high as $30, $34.65, and $35.90.

Formerly, cotton seed was considered worthless; now it adds enormously to the profit of the cotton crops. In the investigation already referred to, it was found that, in every 255.6 pounds of lint of upland cotton, there were 16 bushels of seed, valued at the average rate of 11.9 cents a bushel; while in every 168.2 pounds of lint of sea island cotton, there were 10.3 bushels of seed, valued at the average rate of 23.9 cents a bushel.

There has been a steady falling off since 1876 in the expense of growing cotton in the South; the average cost in that year was 8.32 cents a pound; in 1896, it was 5.29 cents; and at the present time, it is perhaps still less. The reduction in outlay is due chiefly to the decline in the prices of the articles required in producing a crop. All food supplies are now 42 per cent less costly than they

LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA



Lemon trees on a Florida plantation, Lake Worth.



Cotton pickers in the field, Georgia.

were twenty-seven years ago. The falling off in the price of clothing alone has equalled about 37 per cent. The cotton implements, taking in gins, plows, hoes, and wagons, are now 33 per cent cheaper; mules, bagging, and fertilizers, 53 per cent. The charge for picking cotton, the most expensive item in the production of the crops, has declined from sixty to forty-five cents. Considering the shrinking in the cost of production as a whole, we find that it equals 36.4 per cent, while the fall in price of the staple in the same interval has been only 24, which leaves a difference of 12.4 per cent in favor of the decrease in the expense of growing the crops. It is due entirely to this fact that a margin of one cent profit per pound remains.

The expense of producing cotton has, with the single exception of the gin, been less diminished by mechanical invention than the expense of producing any other great staple. So far it has been found impossible to substitute machinery for the hand in picking the lint from the ball, and hence the heaviest item of cost has not been very materially cut down. The general expense of growing a crop will, in the future, be lowered by a variety of influences which a further fall of prices is likely to bring about, namely: first, the return to the custom of slavery times of producing all supplies on the plantation, instead of mortgaging the unharvested cotton to the commission merchant at exorbitant rates to obtain them; secondly, the substitution of carefully supervised labor for the present system of ignorant, indolent, and irresponsible tenants; thirdly, the curtailment of the acreage under cultivation, which would not only lessen the outlay, but also raise prices by shortening the general crop; and finally, the introduction of intensive methods of tillage.

It is far more remarkable of tobacco than of cotton that the volume of production contracts and expands in sympathy with the demand. There is not the same extraordinary tendency to overproduction in tobacco, and in consequence, we find far greater fluctuations in the quantity of this staple

grown from year to year than we do in the quantity of cotton. The Southern States chiefly engaged in the cultivation of tobacco are Virginia, North Carolina, and Kentucky. The crop of Virginia has varied from 89,297,302 pounds in 1882 to 107,711,000 pounds in 1885; and from 107,711,000 pounds in 1885 to 57,961,260 in 1896. The rise in prices has led in more recent years to a very large increase in the size of the annual harvest. In Kentucky, the annual crop of tobacco since 1882 has ranged all the way from 115,896,000 pounds in 1887 to 283,306,000 in 1888; and in an interval of fourteen years, the year of the highest rate of production followed the year of the lowest. In North Carolina, the quantity gathered rose to 114,525,000 pounds in 1895 and fell to 68,629,170 in 1896, in which year, it was barely double what it had been in 1882, fourteen years before. The fluctuations in prices have been as wide and sudden as the fluctuations in the volume of the annual crops.

North Carolina has advanced at the fastest rate in the production of tobacco; the increase in that State, between 1890 and 1900, in the acreage devoted to this staple was 109.1 per cent, while the yield to the acre swelled from 375 to 628 pounds. Twenty-five or more years ago, Pitt County did not grow a pound of tobacco for sale; in 1899 the crop of this single county was 10,733,000 pounds. The two States of Kentucky and North Carolina now produce one-half of the total quantity of tobacco cultivated in the United States; three-fourths of that quantity is produced by the four commonwealths of North Carolina, Kentucky, Virginia, and Tennessee. Some conception of the enormous amount of tobacco handled in these commonwealths may be obtained from the statement that 240,000,000 pounds are sold in the warehouses of North Carolina and Virginia alone. Danville, Virginia, is the largest market for bright loose tobacco in the world; in the single season of 1900–1901, 54,107,500 pounds were disposed of in that city, while the average sales from year to year equal

50,000,000 pounds. The value of the tobacco crop of Kentucky, in 1900, amounted to $18,541,982, twice the value of the combined crops of Virginia, North Carolina, and Tennessee, and nearly one-half the value of the combined crops of the fourteen Southern States.

The value of the southern tobacco crop of 1900 by States was as follows: Kentucky, $18,541,982; North Carolina, $8,038,691; Virginia, $7,210,195; Tennessee, $2,748,495; Alabama, $55,581; Maryland, $1,438,169; Arkansas, $85,395; Florida, $255,211; Georgia, $159,659; Louisiana, $20,488; Mississippi, $9,225; South Carolina, $1,297,293; Texas, $104,694; West Virginia, $228,620. These figures represent a total valuation of $40,193,700 for the fourteen Southern States as against $56,993,003 for the entire Union. The returns for 1903 show $39,993,054 for these States as against $55,514,627 for the entire Union.

There are three important varieties of tobacco now grown in the South, namely, the bright yellow, the dark heavy, and the Sumatra.

The bright yellow tobacco is used chiefly in the manufacture of cigarettes, and as fillers and plug wrappers. Large quantities of it are exported. It is cultivated mainly in Virginia, North Carolina, South Carolina, and East Tennessee, where it grows to perfection only in a loose porous sand, containing from eight to ten per cent of clay, and resting on a clay subsoil. Extensive areas of ground that were formerly considered to be worthless have been found to be especially adapted to this kind of tobacco, and a remarkable rise in their value has followed. It is a crop that requires extraordinary care and skill in the handling; and nowhere, perhaps, in the South is there a finer system of culture in the field and manipulation in the barn than in those districts where the best grades of yellow tobacco are grown.

The dark heavy variety of tobacco flourishes only in the clayey soils. In Virginia and North Carolina its cultivation is generally confined to the alluvial lands lying along the

rivers and creeks. The white Burley of Kentucky belongs to this type. The tobacco of Kentucky and Tennessee forms the bulk of the exports of the dark heavy variety; the product of these two States is shipped in enormous quantities to England, France, and Australia. Up to recent years, the varieties of Southern tobacco bringing the highest prices have been for the most part used in domestic manufacture, but a larger quantity than formerly is now sold abroad.

With the manufacturers of high grade cigars, the Sumatra leaf has long been the standard for wrappers, and Cuba leaf for fillers. As these tobaccos command very high prices, there has, for many years, been a determined effort to produce them in this country. Planters in Florida have been fairly successful in doing so. Seed was obtained from Sumatra and Cuba, and all the methods in use in those communities, whether in the way of cultivating, harvesting, fermenting, or manipulating the leaf, have been carefully adopted in that State, and varieties of tobacco are now produced there closely resembling in color, grain, texture, smallness of vein and stem, elasticity and burning quality, the most famous kinds grown in the two islands.

The manner in which this industry began in Florida, illustrates the spirit which has, in recent years, done so much to broaden the industrial interests of the Southern States. More than half a century ago, there was grown in Gadsden County a species of tobacco that became so well known for its excellent qualities that it acquired the distinct name of "Florida tobacco." The Civil War broke up its cultivation. By 1880, however, its production had been resumed, but on a very small scale; in that year, the number of acres planted did not exceed ninety. A few years later, Cuban seed was sown, and some of the resulting leaf fell into the hands of a great firm of manufacturers in New York City, who were so much impressed with the superior qualities of the tobacco that they purchased for its cultivation about fifteen thousand acres in Gadsden County.

Other firms engaged in the same manufacture soon followed their example. Everything that the most careful selection of seed, the most discriminating choice of soils, the most practical application of manures, and the most thorough methods of tillage could accomplish has been done, and the result has ushered in a new era in the history of the tobacco plant in the United States, memorable as that history has always been.

At the present time, the first market for the cured tobacco is the local warehouse. In all parts of those Southern States largely engaged in growing the plant there have sprung up numerous small towns, which derive their prosperity chiefly from the fact that they furnish a convenient place of sale for the tobacco crop raised in the surrounding country. First, a warehouse is put up near a station on a line of railway; gradually, other warehouses are erected; merchants build stores, and residences follow, until, in a few years, a village has grown around the original warehouse. The village expands into a town; the town, not infrequently, spreads out until it becomes a city. In these local warehouses, the loose tobacco brought in by the planters of the neighborhood is assorted in large piles. On days of sale, there gather buyers, who are either purchasers on their own account or representatives of leading manufacturers in all parts of the country. It is estimated that at least one-seventh of the annual tobacco crop of Virginia and North Carolina is bought by the American Tobacco Company. How much passes into the hands of the factory owners may be inferred from the fact that there are three thousand one hundred and eighty-six registered tobacco manufacturers in the United States. In the most important markets, large quantities of the leaf are purchased by the agents for foreign governments for shipment in hogsheads abroad.

Between 1865 and 1890, all the Southern States, with the exception of Texas, produced a smaller quantity of corn and wheat than they did previous to the War; and the discrepancy was made the more remarkable by the fact that

in 1890 there were ten million more people in the South to be fed than in 1860. In that interval also, the cotton crop of this region, exclusive of the crop of Texas, a comparatively new State, had been increased by two million seven hundred and fifty thousand bales. It is this very expansion in the volume of the cotton crop of the Southern States which, in principal measure, accounts for the falling off in the quantity of corn and wheat grown by them; the disposition has been to give attention only to cotton culture, and to buy all the food products required on the farm, the very reverse, as already pointed out, of the disposition prevailing in the times of slavery.

Since 1890, largely in consequence of the decline in the price of cotton, the Southern acreage planted in corn and wheat has exhibited a tendency to expand, though still it is very limited.

In the long interval between 1860 and 1896, the increase in the production of corn in North Carolina, South Carolina, and Georgia—States fairly representative of the South in this respect previous to 1896,—was barely equal to 2,000,000 bushels, while the decrease in the production of wheat amounted to 1,300,000 bushels. The total yield of corn for 1860 in these States was 75,920,463 bushels, and in 1896, 78,115,176; of wheat, 8,574,250 bushels in 1860, and 7,279,696 bushels in 1896. If the interval between 1890 and 1896 be alone considered, it will be found that the volume of production for both corn and wheat grew notably larger. This tendency to expand was maintained down to 1900, the crops of those States that year being 77,038,847 bushels of corn and 13,114,864 bushels of wheat. In 1903, the corn product had reached 100,298,040 bushels, while that of wheat had declined to 6,845,042 bushels.

In 1903, the entire corn crop of the Southern States amounted to 657,090,125 bushels, as compared with a total crop of 2,244,176,925 bushels for the United States. Only about one-tenth of the annual national crop of wheat was

produced in the South in 1903, the crop of the United States in that year being as much as 637,821,835 bushels, while the crop of the Southern States was only 66,347,381.

As greater attention is paid in the South to breeding live stock, and the superiority of diversified farming is more clearly recognized, the acreage planted in the cereals is certain to expand. More intelligent methods of cultivation are likely to have a similar effect; this has already become noticeable in Tennessee, where, in recent years, a greater quantity of artificial fertilizers has been used, the soil more carefully worked, and a larger area of fallow land in clover put down in grain than formerly. The South Atlantic and Gulf States possess an extraordinary advantage in cereal culture in the fact that the seasons in which corn and wheat can be sown are longer than in other parts of the Union. Frosts rarely occur there before November or later than April.

In spite of the enormous increase in the acreage set apart in recent years in the South for the cultivation of rice, the consumption in the United States has continued, as a rule, to outrun the quantity produced in this country. Previous to 1900, the consumption was estimated at 150,000,000 pounds, of which total, 100,000,000 were imported from abroad. In 1900, the consumption rose to 275,000,000 pounds. The quantity of rice grown in the Southern States in that year was greater by over 80,000,000 pounds than it had been the previous year, and the Southern supply was thus for once at least nearly equal to the average national demand. In 1900, the crops of four States alone—the Carolinas, Georgia, and Louisiana—exceeded those of the same States in 1899 by 66,000,000 pounds. In spite of this remarkable increase, the production of Southern rice still falls short of the quantity the South is capable of growing. The lands suitable for rice culture lie along the Atlantic and Gulf Coasts in the States of North Carolina, South Carolina, Florida, Georgia, Alabama, Mississippi, Louisiana, and Texas; these lands are estimated to cover

at least 10,000,000 acres, from which 100,000,000 additional bushels could be obtained. Were these lands under cultivation, not only would the demand for rice in the United States be always fully met, but a large surplus would be left for exportation. In the present stage of development, the value of the Southern rice crop does not exceed $6,500,000.

South Carolina has been engaged in rice culture for at least two hundred years. The War, however, had a very serious effect there in curtailing the production of this staple. Previous to 1860, the best rice fields of the State were valued as high as $200 to $300 an acre. These lands were thought to be the most profitable form of investment. During the time of the War, the rice districts were practically abandoned; and when the owners returned to their properties at the end of the conflict, they found the dikes broken down, the ditches filled up, and the surface of the ground overgrown with bushes and trees. The difficulties springing from this condition of the rice fields were increased by lack of capital; the rice planters had to mortgage their lands to obtain the means to put them in a state of tolerable order. With capital thus acquired at a high rate of interest, they were confronted with a labor system that had been thoroughly disorganized by the change from slavery to freedom. Working in the ditches was peculiarly distasteful to the negroes; but the climate was a mild one, and they could live with ease by hunting and fishing, and cultivating a few patches of ground. In time, too, the opening up of the phosphate beds, where higher wages were offered, drew away many who would have been willing to earn a subsistence by steady labor in the rice fields. As a further discouragement, in spite of the import tax on rice, the increase in transportation facilities throughout the world, with the resulting reduction in freight rates, have brought the rice growers in competition with the remotest eastern countries. In the face of this combination of facts, it is not strange that the value of the Carolina

rice lands has, in only too many cases, fallen to a point below the cost of the improvements, and that there is a large area which can now be bought for a purely nominal sum.

In 1860, the combined rice crops of the two Carolinas did not run over 96,516,000 bushels; by 1876, they had fallen to 27,354,500. In 1881, when for the first time we have separate statistics for each State, the rice crop of South Carolina was estimated at 30,052,200 bushels, and of North Carolina at 5,160,000. At the end of ten years, the same proportion was maintained. Since that time, the rice crop of North Carolina has rapidly declined, until in 1904 the yield was only 58,340 bushels. The falling off in production in South Carolina has not been so great relatively, but its significance is marked by the fact that while 77,657 acres were planted in 1899 the acreage in 1904 was only 33,300, with a yield of 832,500 bushels.

The drawbacks to the successful culture of the staple prevailing along the coast of South Carolina, prevail also along the coast of Georgia, and this has led in the latter State to the transfer of rice planting to the upland creek bottoms. In 1860, the crop of rice in Georgia amounted to 21,429,000 bushels; Georgia has exceeded this volume of production in only one year since the end of the War—in 1884, the crop amounted to 22,902,000 bushels. Since then the limit of production has fluctuated considerably, the yield for 1904 being only 234,000 bushels.

A few years ago southwestern Louisiana seemed to be a country fitted only for cattle raising. The entire quantity of rice produced there was consumed at home. It was not until German immigrants turned their attention to it that the cultivation of the staple in that part of the State was started on a really important scale. At first, the methods applied were very primitive; for instance, rain water was collected and distributed about the fields as required. In 1884 and 1885, a large number of farmers from the northwestern States came in, and they soon began to employ in

rice culture the same implements they had used in the tillage of the prairie lands which they had formerly owned. The large fields were surrounded with small levees, and from time to time flooded from a creek which ran not far away. The lands themselves were free from foul weeds and grasses, and the water from the creek let in no injurious seeds to curtail the growth of the rice plant. After a while, however, the natural streams were seriously depleted by a drought, and the crop suffered very much; this led, in 1890, to the digging in Acadia Parish of numerous canals to tap the nearest permanent waters; and, at the present time, there are in this parish alone at least one hundred and fifteen miles of these artificial channels. In the different surrounding parishes, there are over four hundred miles in main canals, and twice that length in lateral, dug at a cost of over $2,000,000. Each canal irrigates an area of land spreading over from one thousand to two thousand acres. It is computed that at least two million bushels of rice are produced in southwestern Louisiana alone. Fifteen years ago the town of Crowley, in Acadia Parish, had no existence beyond that of a small railroad station; to-day it contains about six thousand people and is the largest rice market in the United States. The extraordinary development of rice culture in this State is evidenced by the acres under cultivation in 1899 and 1904, which were 201,685 and 376,500 respectively, the yield in the latter year being 11,445,600 bushels. Southeastern Texas is passing through the same stages of development and promises to be an equally important region in the production of rice. The acreage in 1899 was 8,711 and this had increased by 1904 to 234,200, yielding 8,314,600 bushels.

The two Southern States which are most largely engaged in the cultivation of sugar cane and the making of sugar are Louisiana and Texas, but Georgia, Mississippi, Alabama, Florida, and South Carolina are sharing in a steadily increasing degree in these industries. The value of the entire crop of the Southern States is now thought to be equal to

about $50,000,000. In the production of the plant, and in the machinery used in the conversion of the juice, there have been in Louisiana in recent years many great improvements, which has brought about a revolution in the general methods of handling the cane, both on the ground and in the factory. Hoes and cultivators drawn by horses have almost universally taken the place of manual labor; irrigation of the fields is generally carried on; and such manures as cotton seed meal, acid phosphate, and animal refuse from the slaughter houses of New Orleans are used upon the richest alluvial soils. Moreover, the lands are further kept in good heart by a triennial rotation of crops in the stead of the old uninterrupted course of cane planting.

In Louisiana, twenty years ago, there were few sugar houses having a capacity to work up 200 tons of cane a day; at the present time it is not unusual to find a sugar house that can work up 1,500 tons a day, and, in some instances, the quantity mounts up as high as 2,000 tons. Where formerly there were several small sugar factories, there is now a central one, containing, on the largest and most costly scale, every mechanical contrivance for handling the cane quickly and cheaply and for filtering and clarifying the juice. It is said that some of these factories have been rebuilt as often as three times in the course of the last twenty years in order to obtain the full benefit of the latest inventions for reducing cost. So narrow has been the margin of the profit that the sugar planters of Louisiana have found it necessary to introduce every new implement and every new process that will ensure the closest economy. It is computed that, in the form of general improvements, such as machinery and the like, not less than $100,000,000 has been put back into the sugar estates from time to time by their owners, who have been justly pronounced to be among the ablest men of their general calling in the United States. It was not until 1877 that the sugar industry of Louisiana began to be developed to an important extent, chiefly in consequence of the influence of the Sugar Planters'

Association. About eight years later, the sugar experiment station at Audubon Park, New Orleans, was established, and its benefit to the sugar interests of the State, whether by its tests in the field, laboratory, or sugar house, has been almost beyond calculation. These interests have also been greatly subserved by the work of the Mississippi River Commission in constructing and maintaining levees for the protection of exposed lands; moreover, the laws of Louisiana have allowed the creation of Levee Districts, with the power to issue bonds and collect taxes for the same purpose. Under these combined influences, the area of cane planting in the State has steadily increased.

The quantity of sugar produced in Louisiana in the twenty years' interval—1880 to 1900—in tons of 2,240 pounds each, was 3,901,640. These figures are based on Bouchereau's Reports, except those for 1900, which are estimated upon the general reports. The growth of this industry is well illustrated by the figures for seven-year periods which are: 1880-1886, gross tons produced, 760,863; 1887–1893, 1,275,623; 1894–1900, 1,865,154.

Between 1890 and 1900, the capital engaged in the sugar factories of Louisiana increased from $1,943,601 to $52,799,105; the wages of employés, from $417,548 to $2,833,222; and the value of products, from $12,603,913 to $47,891,691. It is estimated that the sugar industry of Louisiana creates in one form or another an interstate commerce amounting annually to $70,000,000; and that the commonwealth, in this branch of its interests, draws from other States supplies equal in value to at least $30,000,000. At the present time, about 300,000 acres are planted in cane, but as the large central factories become more common, a greater number of small landowners will find the production of cane profitable, and will be led to increase the area under cultivation.

Formerly, the bulk of the syrup left over in the sugar houses of Louisiana was thrown into the streams as the quickest means of getting rid of it. Practically it was

unsalable. The introduction of tank cars in recent years has made it possible to transport it at small cost to distant markets; the cars are run up to the sugar house, the syrup is then pumped into them, as if it were so much oil, and an entire trainload conveyed at one time to the North, where it is mixed with glucose and sold as molasses. The quantity of syrup produced by an average crop of sugar cane in Louisiana is computed to be about 20,800,000 gallons.

In 1850, the sugar crop of Georgia was several hundred thousand pounds in excess of the sugar crop of the State in 1890. In recent years, chiefly in consequence of the wisely directed efforts of a single public-spirited citizen, D. G. Purse, President of the Savannah Board of Trade, the volume of production has grown larger, while the methods of culture and processes of manufacture have been greatly improved. The juice is, for the most part, converted into syrup, and in that form exported in rapidly increasing quantities. The cane of Georgia, which, like that of South Carolina, is planted in the light sandy pine lands, is four per cent richer in saccharine matter than the cane of Louisiana.

In 1890, the sugar crop of Florida was only one-half as large as the crop produced in 1850; from 3,300,000 pounds in the latter year, it had fallen off to 1,692,015 in the former. The value of the crop of 1900 was slightly above $700,000. Nowhere in the Southern States have lands so well suited to the culture of sugar cane been so little used for the purpose; it is estimated that in one part of the State—the region lying between Palm Beach and Miami—there are at least 1,000,000 acres especially adapted to such culture, while in the region known as South Florida, a larger area is available.

There can be little doubt that in time the acreage in cane in all the Southern States where it can be grown at a profit will be vastly increased. The consumption of sugar in the United States is, after that of England, the largest per capita in the world; there it is 91.31 pounds; here it is 59.30 pounds. In spite of the additions to the quantity

produced in this country by the cultivation of the beet in the Northern, Western, and Pacific Slope States, the United States only produces 16 per cent of the sugar consumed by its own people. The entire amount of what is imported from abroad could be produced in the Southern States alone if their capacity for growing the cane was fully developed.

CHAPTER V

PRODUCTS OF THE FARM—(Continued)

In no branch of industry since the War have the people of the Southern States shown more energy and intelligence than in the development of their trucking interests. Under the ante-bellum agricultural system, these interests had practically no existence except for purely local markets, which, with the exception of two or three cities, were of small account. Before the War, Savannah, Charleston, and Norfolk had lines of steamers running to Northern ports, but the consignments of early vegetables and fruits in those times hardly exceeded in a year a few hundred packages. The first recorded consignment from Charleston was in 1850, and from Savannah in 1856. It was not until 1866 that the shipments from Charleston became important; in that year, its consignments numbered 1800 packages, and since then they have rapidly grown in volume. In the beginning, all the consignments were made by steamship lines; it was not until 1885 that the first shipment to New York City from the South was made by rail. It came from Norfolk, Virginia. It was not until 1887 that the first consignment by rail was made from eastern North Carolina, and not until 1888 from Charleston, South Carolina.

The enormous growth in the trucking interests of the South is due primarily to four causes: First, the vast expansion in the population of the Northern cities, which created a demand for a larger quantity and a greater variety of vegetables than their surrounding country could supply, and

in time this demand extended to vegetables out of season; secondly, the reduction in the rates of transportation, which made it possible to ship such produce to distant points, and sell it at a profit; thirdly, the introduction of a fast freight service, which set down this produce in distant markets while it was in good condition; and finally, the use of ventilator and refrigerator cars, which preserved the most perishable truck from the injury caused by very warm weather, and brought them to the buyer as fresh as when they were pulled or cut. These cars are equipped with springs, like those of passenger coaches, and also with air brakes.

In addition to these influences, the preference of the negro in a state of freedom for work that is not continuous has had a considerable effect upon the growth of the trucking interests of the South. To a large extent, the labor is engaged for single jobs, which cover only a few days or a few weeks; the hands come and go according to the demands of each crop of vegetables or small fruits. The negro is thus afforded numerous opportunities of earning wages sufficient for his wants without his whole time, throughout the year, being occupied. A few skilled men only are retained during the entire twelve months.

Trucking is also an industry in which women and children are employed in large numbers, and as their services are secured at a very low rate of compensation, the profits of the business are increased and its further spread is induced.

No part of the Southern States is better adapted to trucking than the lands lying along the Atlantic coast, from the eastern shore of Virginia to Georgia. Their nearness to salt water and the warm air of the Gulf Stream gives immunity from early frosts in autumn and late frosts in spring; the atmosphere is generally soft, mild, and humid; the soil light, sandy, and easily broken up. The ground readily absorbs and assimilates a great variety of manures, from the simplest made in the stable up to the most complex brands of commercial fertilizers. So great is the length



Lumber dock at Jacksonville, Florida.



Loading phosphate schooner at Savannah, Georgia.

GE LIBRARY
OF THE
IVERSITY
OF
IFORNIA

of coast from the southern end of Florida to the eastern shore of Maryland, that, beginning almost in the middle of winter, and following the season as it advances northward, until summer is reached, a constant supply of vegetables and small fruits is transported daily from this region to the markets of Baltimore, Philadelphia, New York, and Boston. The traffic is resumed in the fall, when the frosts begin to blight the Northern crops.

The first trucking district, enumerating according to distance from the great markets, is known as the Peninsula District; it embraces the State of Delaware and the counties of the eastern shores of Maryland and Virginia. The most important vegetables produced in this region are sweet and Irish potatoes, cabbage, asparagus, and spinach. Formerly, the landowners were entirely dependent on transportation by water, but since the construction of a branch of the Pennsylvania Railroad to Cape Charles they have enjoyed the additional advantage of transportation by rail; by this means, the whole length of the Peninsula has been brought within a distance of only twelve hours of New York City.

The second trucking district is the Baltimore District, which embraces the western parts of Maryland and the northern parts of Virginia; it also takes in the neck between Rappahannock and Potomac Rivers, and the country lying on the eastern side of the lower reaches of the latter stream. Its production in vegetables and small fruits is similar to that of the first district; but as this region is situated further away from the ocean, it is much more liable to suffer from the damaging touch of frost.

The third or Norfolk District is the principal trucking centre of the Southern States; it embraces the whole of southeastern Virginia and northeastern North Carolina. Not only does this region lie close to the warm and humid air of the Gulf Stream, but it is also cut up by enormous bodies of water, which are either arms of the sea, or the estuaries of the great rivers flowing down from the Appalachian Range of mountains. This fact gives a double

advantage—it surcharges the atmosphere with moisture, and it furnishes extraordinary facilities for transportation. From the wharves of every creek, sound, and bay, local steamboat lines bring off daily, semi, or triweekly, the accumulated crates, barrels, and packages of truck, which are conveyed for transhipment either to Norfolk or the nearest railway station. Railway lines converging on Norfolk from every direction also afford the amplest means of moving the different vegetable crops, and in the height of the season drop at their terminals in that city a vast quantity of truck of all kinds for transportation to the Northern cities. The coastwise steamers engaged in this traffic are built with a special view to handling perishable freight; they are very spacious, and are thoroughly ventilated by large air pipes. They have an average capacity of over twenty-five thousand packages. In one year, 1899, Norfolk alone shipped by steamer to Northern markets 2,200,000 packages.

One of the chief products of the third trucking district is the peanut. This nut reaches in the counties of Virginia lying on the south side of the James below tidewater—such as Isle of Wight, Southampton, and Nansemond—the finest quality to which it attains in the United States. It was not until 1865 that the peanut was cultivated on a scale of importance. The crop of Virginia in 1899 was estimated at 3,713,347 bushels, valued at $2,261,148, while the crop of North Carolina was estimated at 3,460,439 bushels, valued at $1,852,110. As yet, little use has been made of the oil of the peanut, but in time it is likely to become as profitable an industry as it has long been in European countries. A vast quantity of the nuts is now exported to foreign parts.

The fourth trucking district is the Wilmington District, embracing the southeastern section of North Carolina and the northeastern of South Carolina. It takes in, in addition to Wilmington, the cities of New Bern and Elizabeth City, which are connected with the Northern markets both by rail and water. The vegetable season of this district

comes two weeks earlier than that of the Norfolk; shipments from it will reach New York City in thirty-eight hours, while the time required for shipments to Baltimore is nine hours less. From this district alone 12,000,000 quarts of strawberries are sent annually to the Northern markets. There are six counties in the State which produce respectively 1,000,000 quarts each year. Two crops of potatoes are grown, and of this vegetable alone 2,500,000 packages are forwarded in the season from this single district.

The fifth trucking district is known as the Charleston and Savannah District, which embraces the southeastern parts of South Carolina and the lands lying along the coast of Georgia. Charleston is second only to Norfolk in the quantity of vegetables and small fruits sent out from it, both by rail and steamboat. Consignments from this city reach New York in forty hours.

The sixth trucking district embraces the Florida peninsula, a region subtropical in character. Here are produced, out of doors, all those vegetables and small fruits which, in the same season, can only be grown in a hothouse in a more northerly climate. Here at midwinter are seen flourishing in the open air garden plants that are never cultivated in the Northern States under the open sky except in the late spring and summer. So great has been the increase in the speed of the freight service and the improvement in the cars, that the vegetables and small fruits of Florida are now unloaded in New York City, after their journey of fifty-six hours, in a state as fresh as when they were gathered. The first consignments of strawberries are made about March 1st. During the early weeks, express cars are used, and later on, as prices decline, refrigerator cars. About the same time, Florida begins to supply the Northern markets with peas, asparagus, cabbages, cucumbers, potatoes, beans, and tomatoes. Shipments cease when the warm season advances beyond the northern boundary of the State, but as the cold season descends they are resumed, though in smaller volume.

Passing from the Atlantic States to those lying toward the west and southwest, we find there the same extraordinary development of the trucking industry. Mobile is the principal centre of it in Alabama; in the interval of twenty years between 1880 and 1900, the value of the cabbages shipped from this city, it is estimated, amounted to $1,650,024, and the value of the potatoes to $2,022,793. The chief markets for this region are St. Louis, Louisville, Chicago, and St. Paul, and by means of a fast freight service, these points are reached after a journey of thirty-six to seventy hours. Truck gardening began in Mississippi at Crystal Springs in 1866. Owing to the accessibility of that State to New Orleans, through the Illinois Central Railway, this city became its earliest market, and so profitable was the industry that its development, once started, made rapid progress. In 1877, the people of this district turned their attention to the production of tomatoes; and so far has it been carried that Crystal Springs is now the most important shipping place for this vegetable in the world. Fifty carloads in the season daily leave for the northern and western centres. The culture of strawberries has also been carried very far in Mississippi; and in recent years has spread out until it is extensively carried on in different parts of western Tennessee. Here also peanuts, potatoes, tomatoes, and other vegetables are annually produced in great quantities. The same industry has been introduced into Louisiana, Arkansas, and Texas. Nowhere has it grown with more extraordinary rapidity than in the region tributary to Galveston, Texas, and in the districts of the same State around Jacksonville, Tyler, and Palestine. The markets for this wide division of country are found in St. Louis, Louisville, Chicago, Cincinnati, and New Orleans; it is a journey of only twenty-three hours from Fort Smith, Arkansas, to St. Louis, while from New Orleans to Louisville it is a journey of only fifty hours, and to Cincinnati of only fifty-six.

Some conception of the extraordinary development of the trucking interests of the Southern States may be obtained

from the following figures. In 1900, the States of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia, and West Virginia produced in the aggregate $7,214,666 worth of peanuts; of potatoes, $9,997,406; of sweet potatoes, $16,693,557; of miscellaneous vegetables, $42,191,063; of small fruits, $2,741,-109; of onions, $1,148,846, a total of nearly $80,000,000. If we add to this sum the value of the like productions in the District of Columbia, the value of the vegetables and small fruits raised annually in the South for sale reach the enormous total of $83,504,302. An industry which had practically no existence under the system prevailing before the War has swelled to the following proportions in relation to the same industry in the United States at large: Sweet potatoes, 84 per cent; miscellaneous vegetables, 37 per cent; small fruits, 21 per cent; onions, 17 per cent; Irish potatoes, 11 per cent.

In some parts of the South, the culture of the orchard fruits has become almost as important as that of the small fruits and vegetables. In certain divisions of the Piedmont region in Virginia, there has been, in recent years, a notable broadening of the area of ground planted in apples. For several generations the Albemarle pippin has enjoyed an international reputation; the number of orchards devoted to this variety of fruit along the eastern slopes of the Blue Ridge Mountains has been steadily increasing since the War. Both here and in southwest Virginia many new orchards of wine sap have been laid off; and this is also true of the mountain slopes of West Virginia, where, in ten years, the apple trees in bearing have increased from 2,870,535 to 5,441,112. Grapes have long been cultivated with success in Albemarle County, Virginia, and the brands of wine coming out of these vineyards have found a quick sale throughout the country. In Virginia at large, about 203,-941 acres, valued at $4,769,134, are planted in fruits of different kinds; these include a great quantity of canteloupes,

watermelons, and peaches; in one year, 1898, 548,554 watermelons were shipped from Norfolk to the northern markets, but a very large number of these melons had been produced in eastern North Carolina.

The Piedmont region of the Carolinas is as well adapted to the apple as the same division of country in Virginia. In 1890, there were 4,570,605 apple trees in the orchards of these two States; at the end of ten years, the number had grown to 7,133,571; in the same length of time the number of peach trees increased from 2,844,142 to 3,910,578, while the number of pear trees trebled and the number of plum and prune nearly quadrupled. The grape is cultivated successfully in North Carolina. The Scuppernong wine enjoys an advancing reputation and there are now many vineyards in the State which will bear a favorable comparison in every respect with the finest in the Old World.

No State of the South can show a more rapid development in its fruit interests than Georgia. Over 100,000 acres are there planted with the watermelon alone, and its annual production of this melon is equal to one-half of that of the entire Union. In many of the peach orchards there are over 200,000 trees. Between 1890 and 1900, the number of peach trees in the State increased from 2,787,546 to 7,668,639; and what with the orchards laid off since 1900, it is computed that the number of peach trees in Georgia will, by the beginning of 1904, reach 8,500,000. In one county alone, Bartow, there are now 2,000,000 in full bearing. The increase in the number of cherry, apple, pear, plum, and prune trees has been almost as remarkable.

In the course of the interval between 1890 and 1900, the trees planted in the apple orchards of Alabama, which are chiefly situated in the mountainous parts of the State, trebled in number, while the number of peach trees doubled, and the number of pear sextupled.

Between 1890 and 1900, the number of fruit trees of every variety in Mississippi leaped from 1,771,917 to 3,499,818, an increase of 94.4 per cent. The increase

in the number of peach trees alone amounted to 111.3 per cent. The total value of all the orchard fruits raised annually in the State exceeds half a million dollars. Texas, Louisiana, Tennessee, Arkansas, and Kentucky have, in the same length of time, successfully fostered every branch of the fruit industry. In Louisiana, many successful experiments have been made in the culture of the orange; new varieties of this fruit have been introduced wherever the soil and climate have been found well adapted to them.

The orange crop of Florida in a favorable year is estimated at 1,000,000 boxes, and it requires thirty-three hundred cars to transport it to market. Owing to severe frosts, which have caused discouragement, the area in orange orchards has become smaller since 1890. In that year, there were 2,725,272 trees in the State, but at the end of ten years this number had fallen to 2,552,542, and the volume of production from 3,146,440 boxes in 1889 to 273,295 in 1899. In the like manner the number of pine apple plants dwindled from 21,605,000 in 1890 to 14,578,597 in 1900. The production of all other large fruits fell off in proportion. On the other hand, the number of peach, pear, plum, and prune trees greatly increased in this interval. The number of guava plants grew from 21,448 in 1890 to 106,925 in 1900.

In 1900, the Southern States derived from orchard fruits alone an income of over $14,000,000. In an abundant season this sum would be enormously increased.

As yet, floriculture has not reached proportions of any importance in the South. There is, however, good reason to think that this branch of industry is destined to be greatly developed hereafter. The Southern States are especially suitable for such culture, and in time will contribute large quantities of flowers to the northern as well as to the southern markets.

There is found all over the face of the South an abundance of grasses that can be used for forage and pasturage.

Many of these are not indigenous, but have taken root when brought in by the agricultural experiment stations and have sprung up and flourished as well as if they were not foreign to the soil. Of the three hundred and fifty species of grasses suitable for forage crops grown in the United States, more than one-half attain their greatest luxuriance south of Potomac and Ohio Rivers. In recent years, owing to the diversification of farming products and the greater attention paid to the breeding of live stock in this section of the country, a large area of ground is annually sown in grass seed of various kinds. The importance of the annual harvest steadily increased until, in 1899, the value of the oat crop rose to over $15,000,000, while the value of the hay and other forage crops was computed to be equal to at least $54,500,000.

Timothy is the variety of hay most commonly produced. It is now grown in all the Southern States. Next in quantity follows herd's grass, orchard grass mixed with clover, meadow oat grass, meadow fescue, Italian rye grass, millet, gama grass, sorghum, crab grass, Kentucky blue grass, Texas blue grass, and Bermuda grass. These grasses are peculiarly adapted to different kinds of southern soil and have the highest degree of power to resist the dryness of a southern summer.

The Southern States produce a great variety of leguminous plants, most of which are indigenous. Some of the most valuable, however, have been introduced and are found to flourish as well as the native stocks. These products are not only as nutritious for live stock as the domestic grasses, but are also singularly efficient in restoring the fertility of the ground worn out by indifferent culture. The superior quality of leguminous plants consists in their ability to absorb the free nitrogen of the air; this is imparted to the soil as soon as they are turned under by the plow; and when they are cut for dry forage, it is this element in their composition which makes them especially valuable as food for horses, cattle, and other animals.

The principal varieties of leguminous plants produced in the Southern States are red clover, crimson and white Japan clover, sainfoin, alfalfa, cowpeas, peanuts, and soy beans. Of these, the red clover is perhaps the most valuable, as it can be grazed in the pasture and also cured as hay. In many of the Southern States, it has become a staple crop. The crimson clover was brought in only in recent years, and is now grown in great quantities for the benefit of the creameries. Alfalfa, a plant remarkable for its hardiness, longevity, and abundance of yield, is cultivated over a large area in Louisiana. It has the highly useful quality of being perennial.

The leguminous plant now most in favor with the farmers of the South is the cowpea. It has, in great measure, taken the place of the different varieties of clover, largely because it will flourish in soils too poor to support any other kind of permanent growth. In addition, the cowpea affords two crops in one year. The peanut plant, which is now cultivated in increasing quantities in the Southern States, is everywhere used as a forage crop; and with that purpose in view, it is carefully gathered before it is damaged by the frost. Some of the inferior specimens of nuts are allowed to remain on the vine, as the mixture of nuts and vines has been found to be very good in enriching the milk of cows, and also in fattening pigs. The soy bean is now sown over large areas as feed for hogs and sheep; it is so prolific that a yield of twenty-five to forty bushels to the acre is not uncommon.

Passing to the substitutes for hay in feeding live stock, we find that, since 1870, cottonseed hulls are largely used for this purpose. It is computed that every year at least 400,000 head of cattle, and almost as many head of sheep, are, before they are sent to market, fattened on cottonseed hulls and meal in the vicinity of the oil mills of Houston, Memphis, New Orleans, Atlanta, Raleigh, and other cities and towns. Cottonseed meal is now looked upon as one of the most concentrated of all the forms of food for live stock,

and tests at the Texas Experiment Station show that fatter beef can be produced and at cheaper rates by serving this variety of meal than by serving the same quantity of the meal of Indian corn. According to these tests, one pound of the former is equal in value in producing beef to 1.20 pound of the latter. Mixed with cottonseed hulls, grass, and maize fodder, it is fed in large quantities to horses and mules, but experiment has proved that it is very injurious as food to hogs and very young cattle. How enormous is the supply of cottonseed meal which is available as a substitute for hay and maize in the Southern States, is revealed by the fact that one of these States alone, Mississippi, produced, in 1898, 800,000 tons of cottonseed. As food for live stock, it supplements without failure any deficiency in the crops of Southern forage caused by prolonged droughts in summer.

In 1880, there were only 200,000 more neat cattle in the Southern States than there were in 1860, but, in 1900, there were 6,300,016 more than there were in 1880. In 1860, there were 8,542,457 neat cattle in these States; in 1880, 8,765,676; and in 1900, 15,065,692. In forty years, the neat cattle in the South had failed to double in number. In 1860, the number of neat cattle in that region formed fifty per cent of the entire number to be found in the United States, while, in 1900, they formed only twenty-nine per cent; and yet between 1880 and 1900, the increase of Southern neat cattle was 71 per cent as compared with 85 per cent for the country at large.

The statistics for Southern sheep and swine are more remarkable even than those for neat cattle. There were more sheep in the South in 1880 than there were in 1860, but there were more in 1860 than there were in 1900. The number rose from 6,094,572 in 1860 to 8,610,350 in 1880, but declined to 4,966,900 in 1900, a falling off of over three millions. In 1860, there were 18,282,317 hogs in the Southern States. This number had sunk to 16,582,350 in 1880, and twenty years later, there were in these States 953,552 fewer than there were in 1860. At

the beginning of the War, the South possessed 54 per cent of the swine of the country, but, in 1900, only 27 per cent. The percentage of sheep had shrunk from 26 to 12.

The comparatively small increase in the number of neat cattle, and the absolute decline in the number of sheep and hogs in the Southern States, in the course of the last forty years, is due to the following causes: first, between 1861 and 1865, there was an enormous destruction of all kinds of live stock, but particularly of those kinds used for foods; secondly, since the War, there has been less disposition than there was before to diversify the products of the farm; the great staples have occupied the attention of the landowners, and they have considered it cheaper to buy their meat than to raise it; and finally, the number of young cattle, but especially of sheep, has been seriously diminished by the depredations of sneak thieves and wandering curs. With one or two exceptions only, the Southern legislatures have refused to impose a tax on dogs. Though, in many respects, admirably suited for sheep husbandry, the Southern States have year by year seen their interest in this form of live stock—one of the most valuable of all in its return of money, and the improvement of the soil—grow less and less, until in 1900 the decrease amounted to 34 per cent.

As already pointed out, there was, between 1880 and 1900, a tendency toward an enlargement of the number of southern hogs—small, it is true, but promising greater proportions hereafter. An increase of only 4 per cent in the course of twenty years does not in itself appear very encouraging, but there are conditions now prevailing in the South which are certain in the end to be highly promotive of hog breeding in that region. In the first place, more pounds of pork than of all the other meats combined are consumed there by the laboring class. It is a staple article for sale in all the country stores. In addition to this extraordinary demand for pork in the Southern States, these States possess unusual advantages for raising hogs in the remarkable variety of their food crops, the length of their

season of mild weather, which permits an almost continuous grazing, and the immunity from disease which these conditions encourage. By successive sowings, four or five crops can be obtained from the same ground in the course of six or seven months. Thus, in Louisiana one may plant in February or March the early ripening sugar corn, and drive the hogs on it in May. When this is consumed the land can be planted in early amber sorghum, to be succeeded by early cowpeas, and this in turn can be followed by late cowpeas or potatoes. In this way an ample quantity of fresh succulent food can be supplied to hogs until quite late in the fall.

In recent years, with the growing importance of hog raising in the South, there has been a disposition there to introduce the finest varieties of this animal; the mongrel razorback is being steadily displaced by Poland China, Red Jersey, Essex, and Berkshire. This is removing one of the most serious obstacles which has hitherto prevented profitable pork making in the South. Another obstacle, however, still remains almost as great as ever, namely, the absence of packing houses. The costliness of tight wire or wooden fences has also made slower the advance in this branch of Southern live stock breeding.

The steady increase in cattle raising in the South between 1880 and 1900 is, in a measure, due to the growth of the Southern cities, which has enlarged the demand for both milk and beef. So far there has been made no extraordinary effort to ship large quantities of butter to the Northern markets. The milch cows in the South, without counting those of Maryland, Arkansas, and Louisiana, exceed three million and a half in number, and are valued at nearly $75,000,000.

The increase in the number of Southern cattle since 1880 is chiefly due to the use in stock raising of the prairie lands of Texas. This State, in 1900, possessed 8,567,173 head of cattle. It still forms one of the most extensive ranges in the United States, though its production of cattle has, in very

recent years, fallen off, owing to the low prices of beef which, however, are already passing away. The receipts of Texas cattle in Chicago, in 1896 alone, numbered 717,153 head, but declined in 1900 to 194,726. This State supplies with cattle not only such great markets as those of Kansas City, Omaha, and St. Louis, but also the vast breeding grounds of Missouri, Nebraska, Iowa, Kansas, Illinois, Michigan, and Wisconsin. There is now a movement toward the establishment in Texas of packing houses on the largest scale, and this will greatly increase the volume of the State's cattle interests. These houses will enjoy an extraordinary advantage in their nearness to the Gulf ports, from which direct shipments can be made to Central and South America as well as to Europe. The completion of the Isthmian Canal will also throw open to them the hitherto inaccessible markets of the East.

Kentucky continues to maintain its reputation for the breeding of fine horses, while the breeding of mules has become one of the most important industries of Tennessee. Virginia, of late years, has sought to revive its interest in raising horses, in which, at one time in its history, it stood without a rival. Annual horse shows are now held in different parts of the State and they are doing much to restore its former prosperity to this branch of live stock breeding. The value of the farm horses of the Southern States, omitting those of Louisiana, Arkansas, and Maryland from the calculation, was, in 1900, about $137,000,000. This estimate does not include the value of the many thousand horses not belonging to farms. The value of the whole number of these animals in the South would probably be very near $160,000,000.

Between 1880 and 1900 the increase in the value of the live stock interests of the South amounted to $332,574,735. The combined value of these interests in the fourteen Southern States was, in 1900, estimated at $710,502,718.

CHAPTER VI

PRODUCTS OF THE FOREST

It is largely due to the peculiarities of the agricultural system during the existence of slavery that the resources of the Southern States in timber are to-day, in proportion to the area of ground covered by these States, the largest in the world. As we have already seen, the universal tendency during that period was toward the enlargement of estates in order to obtain the fresh and virgin soil, which, at a time when modern manures had not come into use, was necessary to the production of cotton and tobacco of the finest quality. During a period, too, when practically no attempt was made to feed cattle, wider ranges every year were required by the ever-increasing herds that wandered through the forests in the search for their natural forage. On the large tobacco plantations, a great quantity of logs was consumed in curing the leaf, and this was an additional reason for the acquisition of extensive areas in wood, and also for the preservation of the trees. On every estate, there were certain fields that were always kept open for cultivation or for pasturage, but a large part of each estate was what was known as new land, *i. e.*, land which had been under the plow only for a year or two. Such land continued to be tilled until its fertility was completely destroyed; it was then abandoned to broom straw and other coarse and hardy grasses. Soon small pines began to spring up here and there, until, at the end of a few years, the array of pines

would be so thick that, with difficulty, a horse and rider could pass between them. Finally, as the trees, owing to overcrowding, would die in places, dogwood would spring up, and this would be followed by other small hardwoods. At last, hickories, oaks, and the largest varieties of hardwood would creep in, and as the years lapsed, grow to an enormous size.

Such is the history of a great part of the wooded area of the Southern States to-day. The traveller in passing through these vast forests, where the deer and half-wild cattle roam undisturbed, may still often detect the long corn rows which, through half a century, have kept the form given them by the last plowshare that penetrated the ground. There is a pathetic aspect to some of the other signs of man's former habitation so often seen in the same remote spots. It was the custom in the older States, on the Atlantic coast more particularly, for the larger proprietors to buy the small estates around them with the view of extending the boundaries of their plantations. The former owners of these little homesteads then emigrated to the far South or the West, while the houses they had occupied were left to tumble down, and the fields they had tilled to grow up in wood. But the bones of their dead remained behind, and year by year the burial mounds sank deeper with the settling earth. Many of these graves continue distinctly perceptible though great oaks have succeeded the original pine, and the sunken mounds are the last evidences that there had been the site of a homestead.

The subdivision of Southern lands, which has been going on so rapidly in recent years, has not yet done much to curtail the area devoted to forests. Of the entire wealth of the United States in the shape of timber, sixty per cent is to be found in the South; and the proportion of land in forest in each of the Southern States is in accord with this general fact. Thus, in Tennessee, 74 per cent of its total area is occupied by woods; some of its counties have as much as 200,000 acres in timber. The area in

REESE LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA



Fire and police stations and other municipal buildings, Louisville, Kentucky.

forest in North Carolina spreads over 35,300 square miles, or 73 per cent of the surface of the State. In South Carolina, 12,000,000 acres are overgrown with pine alone. The forest lands of Alabama embrace 20,930,693 acres, or 74 per cent of its entire area, while Louisiana's surface in forest covers 28,300 square miles. Texas possesses one belt of timber which spreads over 25,000,000 acres. Three-quarters of the whole area of Florida is overgrown with pine, while the wooded area of Arkansas embraces 84 per cent of the entire territory of the commonwealth. Of this succession of vast forests, which extends from one end of the Southern States to the other, a very large part consists of trees of the original prehistoric growth. Thus Tennessee alone has over 7,000,000 acres in wood of this kind.

The climate of the greater part of the Southern States is modified by two important facts: first, these States reach from the northern division of the temperate zone to the northern division of the tropical; secondly, the coastal plain from Maryland to Alabama rises gradually into a hill country, and the hill country into a region of mountains, which, in Virginia and North Carolina particularly, spring up to a very lofty height. Even commonwealths having no line of coast, like Tennessee and Kentucky, are distinguished for two climates, as a result of their division into a central plain and mountainous plateau. In consequence of the extraordinary diversity of climate produced by these combined causes, we find in all the Southern States subject to their influence, a remarkable variety in plant life, especially in that branch represented by the tree. The differences in the composition of the soil, whether we compare the coastal plain with the mountain districts, or either with the valleys of the Mississippi and its southern tributaries, have also been productive of marked diversity in arborial life.

Perhaps the differences in climate and soil in the more temperate region of the South are nowhere more strikingly

illustrated in their relation to the growth of trees than in North Carolina. As this State occupies a central position, its forests are typical both of the southern and northern tier of Southern States which run back from the sea to the Appalachian range. There are three distinct regions in this commonwealth, each remarkable for a separate plant life: (1) the coastal plain; (2) the Piedmont plateau; (3) the mountain slopes. Along the highest surface of the coastal plain the loblolly pine flourishes, intermingled with a subordinate growth of stunted oaks. Wherever the soil becomes sandy, the long leaf pine takes the place of the loblolly, and the oaks are succeeded in spots by ash, maple, sweet and black gums, elms, white cedars, and white bays. The growth on the Piedmont plateau is more mixed still; oaks, hickories, and dogwoods are found there springing up along with the short leaf pine; here and there are magnificent forests of oak and hickory alone; elsewhere the pines outnumber the hardwoods, such as the post oak, Spanish oak, and black oak, which form a lower story beneath the roof of pinetops. On the fertile lower mountain sides there tower the poplar and chestnut and the red, white, and chestnut oaks, which here reach a size not surpassed elsewhere in the United States. Intermingled with them is the smaller growth of lindens, birches, beeches, ash, cherry, and maple. Higher up on the cold and windy northern slopes of the mountains vast forests of hemlocks are discovered; and higher still, at an elevation of 4,000 feet above the sea, forests of spruce and fir. Finally, the bald tops of the giants of the range are reached, where no tree can grow.

In North Carolina every variety of linden and magnolia that grows in the United States is found, and also every variety of maple that flourishes east of the Mississippi valley. Of the nine varieties of American hickory, eight are indigenous to the soil of this State; and this is also true of eight of the eleven varieties of the American pine. Of the American elm, three of its five varieties are found here.

In the extreme southeastern part of North Carolina, there grow certain kinds of trees which, unless transplanted, disappear entirely further north, but spring up spontaneously everywhere further south, such as the palmetto, prickly ash, mock orange, and live oak. On the summits of the mountains are seen varieties which are not observed toward the south, but flourish as far toward the north as the provinces of Canada; these include the black spruce, the striped and spiked maple, the aspen, the balsam fir, and the mountain sumac. One tree, the clammy locust, is found in North Carolina alone; others do not grow beyond neighboring States, such as the yellow wood, the large leaf umbrella tree, and the Carolina hemlock. Twenty varieties of trees reach their greatest height and girth in this State; there are fourteen which rise to a height of one hundred feet, and three to a height of one hundred and forty, while a diameter of seven feet is attained by sixteen.

In North Carolina alone, there are one hundred and fifty-three varieties of trees; and in Florida, two hundred, if we consider as a tree every plant that has a solid woody stem four inches in diameter and growing erect. The wealth of the other Southern States in species and varieties of trees is almost equally extraordinary.

It will be interesting to enumerate the most valuable kinds of trees that are found in the Southern forests.

(1) The long-leaf pine. The fibre of this variety of pine is nearly twice as strong as the fibre of the yellow pine, and is singularly free from defects and flaws. Vast quantities of the timber obtained from it are used in making floors, wainscotting, and the like. (2) The loblolly pine. This frequently rises to a height of one hundred and forty feet, and retains a diameter of five feet some distance above the expanded foot of the tree. Its grain is much coarser than that of the long-leaf pine. It is found to be especially valuable in the construction of panelling, wainscotting, and ceilings. This variety of pine grows with extraordinary rapidity. (3) The yellow pine. This variety has a soft

yellow fibre that is very light in weight. It is the first tree of considerable size to take possession of the abandoned fields. There are several kinds. (4) The Cypress. This species of tree flourishes in all the swamps along the coast. It is often from five to seven feet in diameter above the swollen base, and is especially valuable from the fact that its fibre shrinks or swells very little when exposed to heat or cold; for this reason, cypress is largely used in the manufacture of shingles, doors, sashes, buckets, tubs, and boats. (5) The red cedar. This tree often rises to a height of fifty feet, with a diameter of three feet the greater proportion of its length. It has an extraordinary power of resisting decay when put in the ground, and, in consequence, large quantities are converted into posts and railroad ties. It is also consumed in the manufacture of pencils. (6) The white cedar, or juniper. This variety of tree is peculiarly valuable in the making of all kinds of wooden utensils, and also of shingles. The trunks are largely used for telegraph poles. (7) The hemlock. This tree sometimes rises to a height of one hundred and forty feet. It is chiefly important as affording bark for tanning; the grain is too coarse for the finer work in building, but is turned to very good account in framing. (8) The balsam. This variety of tree is useful as furnishing excellent sounding boards for musical instruments. The resin is also consumed in medicine. (9) The white oak. There are nine varieties of this tree, the timber of all of which is very valuable. Sawed in a way to show the silver grain, the white oak is manufactured into furniture and office furnishings, but the bulk of the trees cut are converted into railroad ties. Large quantities of the wood, however, are made into spokes, felloes, and rims for wagon wheels. The bark is useful in tanning. (10) The red and black oaks. There are nine varieties of these two oaks. In the mountain regions of the Southern States, the red oak grows to a height of one hundred, and even one hundred and twenty feet, with a circumference that reaches sometimes as much

as twenty-two feet. The trunk is often devoid of limbs two-thirds of its entire length; it is not uncommon to obtain six thousand boards from a single red oak. (11) The chestnut. This wood, having an endurable fibre, is largely used for ties, telegraph poles, and fence rails. As it takes a polish very readily, we find it entering more and more into cabinet work and interior furnishings. (12) The beech. This wood is chiefly used in the manufacture of tool handles and shoe lasts. (13) The birch. We find the yellow birch not infrequently reaching a diameter of four or five feet; it affords an excellent veneering for furniture and pianos. The cherry birch, another variety of the same tree, is also largely consumed in the manufacture of furniture, while the black birch is used to meet the increasing demand for trucking crates and barrels. (14) The yellow locust. This tree sometimes rises to the height of eighty feet and attains a diameter of three. Owing to the strength and durable quality of its fibre, it is chiefly converted into wood pins, tree nails, fence posts, and the like. (15) The wild black cherry. The trunk of this tree is often sixty feet long, with a diameter of four. There is a growing demand for it in the manufacture of furniture, for which it is especially suitable owing to the fineness of the polish which it takes. (16) The sweet gum. The height of this tree is often as much as one hundred feet, and its diameter five. It is now largely used in the manufacture of trucking barrels, trucking crates, and packing boxes. (17) The white elm. This tree furnishes an excellent material for hubs and fruit crates. (18) The sycamore. This species often reaches a diameter of four feet. It is used in the manufacture of tobacco boxes, and when quarter sawed affords a fine panelling for furniture and interior finishing. (19) The white and black walnuts. The walnut of both varieties attains a very great size, and is often devoid of limbs to the height of seventy feet above the ground. The wood is extensively used in the manufacture of all kinds of furniture. (20) The hickory. This variety of tree is valuable for many purposes;

among others, it forms the staple material for wagon hubs and spokes. (21) The linden. We find the linden now much used in the manufacture of buggies and furniture. It also serves as the panelling for ceilings. In recent years, large quantities of linden have been converted into wood pulp. (22) The maple. There are four varieties of this tree, all of which supply an excellent material for the interior furnishings of railway and tramway cars. (23) The poplar. This tree very often rises to a height of one hundred and twenty feet, with a diameter of eight for a distance of several yards above the level of the ground. It is used in many articles of manufacture, such as wood pulp, crates, packing boxes, and furniture. Other valuable woods from the same point of view are the magnolia, persimmon, and sassafras. The persimmon is consumed in the making of shuttles, and it has also been discovered to be an excellent substitute for ebony.

Of this great array of valuable trees, the long leaf pine is the one that contributes most to the wealth of the Southern States. Apart from the raw lumber which it affords, it furnishes the bulk of the naval supplies of the United States. By removing a thin layer of the sap wood, the turpentine is led to flow into the hole cut in the foot of the tree to receive it. From this turpentine are obtained pine tar, resin, and the oil of turpentine, which form some of the most important products entering into commerce.

There has been, of late years, an extraordinary increase in the number of establishments in the Southern States engaged in manufacturing resin and turpentine. The capital employed nearly trebled in the interval between 1890 and 1900, while the value of the output more than doubled. The following figures throw an interesting light on these points as relating to the States of Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, and South Carolina: Number of establishments, 1880, 508; 1890, 670; 1900, 1,503. Capital, 1880, $1,866,390; 1890, $4,062,375; 1900, $11,847,495. The value of the products for the

same years was $5,876,983, $8,077,370, and $20,344,888 respectively.

It is as lumber, however, that the long-leaf pine is most important as contributing to the general resources of the South. In recent years there has been a rapid decline in the supply of white pine to be found in the great lumber States of the Northwest—Michigan, Wisconsin, and Minnesota—and the area in Canada covered with the same timber is also steadily diminishing with the heavy inroads upon it. In 1900, the available supply of conifers in the Northern States was computed to be about 100,000,000,000 feet B. M., but hardly one-half of it was a growth of white pine. Already the number of mills there engaged in sawing this kind of lumber has been greatly lessened, and the cut, which now reaches about 18,000,000,000 feet, must annually fall off. Canada is passing through the same stages of decreasing production. With the price of labor so high and the great markets for lumber so remote, it will be impossible for such distant States as Oregon, Washington, and California to make good the deficiencies of Canada and the northwestern and northeastern commonwealths. The South already controls absolutely the markets for long leaf pine in the United States and it practically controls the entire lumber trade of the whole country.

It was not until 1880 that the extraordinary wealth of the Southern States in this variety of timber began to be turned to account; in that year the quantity of long and short leaf pine standing in nine of these States was computed to be in feet as follows: Alabama, Florida, Arkansas, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Texas, long leaf pine, 117,119,000,000, and short-leaf pine, 121,901,400,000.

The preceding figures, however, do not show the total number of feet inasmuch as no estimates were obtainable for that year in some cases for a particular variety of pine. North Carolina, for instance, contains a vast quantity of short leaf pine as well as long; Georgia also contains a

vast quantity of long leaf pine as well as short; and yet in neither case is any estimate given.

In 1899 alone, North Carolina shipped from the single port of Norfolk, Va., about 600,000,000 feet of timber, chiefly pine. For many years, capitalists of Baltimore have been actively interested in developing the trade in pine lumber in that State. The quantity brought to market has been very much increased by the facilities for transportation created by the Dismal Swamp Canal; it is now proposed to reconstruct this highway so as to make it more important than ever as a means of reaching the forests in the region through which it passes. In the shipment of pine in 1900, Arkansas surpassed all the other Southern States by 50,000,000 feet of lumber; the quantity which it sent out in 1900 alone rose to the enormous figure of 525,000,000 feet. The production of pine lumber in Louisiana amounts annually to about 500,000,000 feet. In 1895, Mr. B. E. Fernow, the director of the New York State College of Forestry, and perhaps the leading forestry expert in the United States, estimated the annual cut of long leaf pine in the South at 4,000,000,000 feet B. M., and the annual cut of short leaf at 3,000,000,000 feet B. M. Since that time, the annual cut of both short leaf and long leaf has steadily increased.

The principal railroads of the Southern States have been powerful agents in the exploitation of all the lumber resources of these States, and especially of the resources in pine. The Southern Railway, the Seaboard Air Line, the Atlantic Coast Line, the Louisville and Nashville, the Mobile and Ohio, the Illinois Central, the Southern Pacific, and the Texas Pacific pass through the great pine belts, and each system has thrown out a number of spurs in order to bring within the reach of a profitable market some part of those forests previously inaccessible. Five railways penetrate the vast pine area situated in Northern Louisiana and the adjacent portions of Texas and Arkansas. Railways in the same way have made available the pine forests of Florida,

which at one time covered three-fourths of the entire surface of that State, and were among the remotest from market to be found in the South.

The supply of cypress timber is, in some of the Southern States, almost as extensive as that of pine. The resources of Louisiana in this species of valuable tree are especially great; its cypress trees are estimated to contain as much as 10,000,000,000 feet B. M. The manufacturing association dealing in cypress lumber, which meets monthly in New Orleans, represents an annual output of 300,000,000 feet of finished product. The resources in cypress timber of Louisiana are almost equalled by those of Arkansas; that State turns out cypress shingles to the number of 300,000,000 a year, while the number made in North Carolina in 1900 fell little short of 64,000,000. The number of shingles of the same wood manufactured at Mobile, Alabama, averages about 1,000,000 a day. The entire annual cypress cut of the South is computed to be 500,000,000 feet.

The area in the Southern States overgrown with such hardwoods as the oak, chestnut, hickory, and hemlock is perhaps more widespread than that which is covered with pine. North Carolina alone has in its mountain districts forests of hardwoods capable of producing about 10,760,000,000 feet of finished lumber. Of these hardwood forests about 41.41 per cent represents the growth in oak, 17.21 per cent the growth in chestnut, and 5.30 per cent that in hemlock. The supply of poplar standing is about 197,000,000 feet. In 1900 the poplar cut reached 51,686,000 feet, and the white oak, 86,245,000. One-half of the annual cut of hardwoods in the Southern States, which amounts to 3,200,000,000 feet B. M., is composed of oak; enormous quantities of white oak staves are shipped from Louisiana to Spain, France, Italy, and Portugal, to be used in the manufacture of casks for wine and oil; the red oak stave is chiefly used in this country in making barrels for whiskey and molasses.

The manufacture of hardwood staves has grown to be a very large business in Tennessee; between 1892 and 1896

alone, the number produced along the line of one railroad only—the Nashville, Chattanooga and St. Louis Railway—rose to 240,000,000, an increase in six years of 400 per cent. Twenty years previously, the number of staves made in this region did not exceed 1,650,000. The city of Nashville now occupies the position of the third most important hardwood market in the world; its shipments amount to about 27,000,000 feet each year, while it carries permanently in stock about 60,000,000 feet.

In 1880, the entire output of lumber in the Southern States did not exceed $39,930,428 in value; twenty years later the value of the output had increased to $188,114,524. As far back as 1895, the volume of the annual cut had reached the enormous proportions of 10,700,000,000 feet B. M., which formed one-fourth of the annual cut of the entire United States. The amount of capital engaged in this industry in the South in 1900, and the value of the lumber produced there in the course of that year were respectively $181,701,516 and $188,212,544.

If we include in the preceding estimates the value of the fuel and fencing which the same forests supply, and also the value of the railroad ties and telegraph poles, and all kinds of naval stores, it will be found that the value of the entire forest products of the Southern States from year to year falls little short of the value of the annual crop of cotton.

The great danger throughout the South at the present time is that a too liberal draught will be made on its forests, and that one of the most important sources of Southern wealth will in time be practically exhausted, with no hope of its restoration in proportions that will approach what it was at first. There is just ground for this fear. Already the forestry experts of the North as well as of the South have sounded a loud note of alarm; the Southern people are urged, while it is not too late, to follow such a course in the use of their forests that these shall always be preserved as a source of steady income. The reckless destruction

of the forests of the Northwest, in the eager haste to make the most of the fine primæval growth, is pointed out as an object lesson full of valuable warnings. The elimination of these forests has increased the value of the timber lands of the South, not so much on account of the greater amount of money which the timber itself will bring if sold in a body in the open market as on account of the large income which these lands will assure for an indefinite period if the annual cutting is made on the scientific principles carried out in the forests of the Old World. Individuals anxious to convert their growing timber into cash, may be too blind to perceive what is their true interest in the use of their woods, but fortunately the majority of the great companies now owning an important proportion of the Southern forests are waking up to the necessity of showing the same judgment and discrimination in their annual cut as have been so long shown in Europe. In this fact lies the strongest reason for expecting the permanent preservation of many forests covering a vast area in the Southern States.

For several years there has been much discussed the suggestion that Congress should set apart as a great national park a wide extent of forest in the Appalachian Mountains. The reservation that has been proposed would embrace the narrow southwestern corner of Virginia, the mountain backbone dividing Tennessee and North Carolina, and the extreme northern point of Georgia. It would form a strip one hundred and twenty miles in length and fifty miles in width. It is within these bounds that the rivers of seven States have their fountains. Not only would such a reservation, by the careful protection of the forests which it would assure, preserve for an indefinite period the chief water supply of a vast region of the South, but it would save from destruction one of the most magnificent bodies of timber now standing on the North American continent, a body as remarkable for the variety as for the size of its trees. As the population of the surrounding States increased and the surface of these States became more thoroughly cleared of wood in the

process of a more extended cultivation, a great Appalachian reservation like that suggested would advance in interest as showing the character of the original growth of the country in its most striking form. In addition, such a vast reservation, used in the manner demanded by the most modern woodcraft, might be made to contribute annually, without any injury to the forest itself, a great store of the finest lumber to the needs of the adjacent States.

What might be accomplished by such a reservation from a practical as well as a scientific point of view is admirably illustrated on the great Biltmore estate, near Asheville, an estate where a large sum of money has been expended to show what the Appalachian region is capable of in the way of forestry, and to what useful ends this forestry can be turned. Two main objects have always been kept in sight by the owner of this estate: the application, on the one hand, of the principles that enter into the management of a national forest reserve; and the application, on the other, of the principles that enter into the management of the property of an ordinary lumber company. In other words, the aim at Biltmore has been to preserve the forests and also to use them; and in carrying this out, an example has been set to the landowners of the Southern States, which, if followed, would not only increase their own fortunes in the long run, but also prevent the final destruction of one of the South's most extraordinary sources of permanent wealth.

On the Biltmore estate there are 110,000 acres of woodland. This is divided into two areas, one of which covers 10,000 acres, the other, 100,000. In the first area no tree under a certain diameter is ever cut, and no tree is cut at all unless first selected by a trained forester. The whole object of this custodian, as of the custodians of the national forests of France and Germany, is to increase the value of the growing woods by removing all the older trees that can be taken away to the advantage of the remainder, and by fostering the healthfulness of the younger. Several

millions of small trees and shrubs have been planted. A nursery has been established with the view of testing the soil and climate for all forms of forest growth that seem likely to thrive; in this way, many exotic shrubs and trees have been introduced which will prove valuable to the entire Southern States.

CHAPTER VII

PRODUCTS OF THE SEA

A GLANCE at the map of Maryland, Virginia, and North Carolina would convince even one not familiar with the natural history of these States that their waters in reach of the ocean tides must be unusually rich in all those varieties of fish that are found in the temperate zone. In Maryland and Virginia, we have the great Chesapeake Bay spreading from Capes Charles and Henry far up into the land, a body of water as large as some bearing the more pretentious name of sea, and yet communicating with the vast ocean only by a narrow mouth. River after river—a succession of streams of the first order—pour down from the Appalachians a mighty volume of fresh water to modify sensibly the saltness of the flood that rushes in from the Atlantic. Where these great rivers join the bay, they form broad estuaries, which, like the Chesapeake, would have distinct names of their own but for the fact that they are merely parts of one of the largest bays on the American coast. The fish entering the gateway at the capes not only find a vast feeding ground in the Chesapeake itself, but also secure breeding spots in the rivers and creeks intersecting the lands adjacent to the bay like so many veins in the human body. The water has just that degree of freshness and saltness which affords the greatest nutriment to shellfish, while the bottom is sufficiently firm to constitute the finest natural beds for their spawn.

The long sandbank which serves to shut in Albemarle and Pamlico Sounds in North Carolina gives those noble sheets of water a character somewhat similar to that of the Chesapeake. Great streams, gliding down from the mountain plateau, pour into these broad but shallow basins a vast flood of fresh water; the tides, creeping in through the inlets north and south of Hatteras, and mingling with this fresh water, impart the degree of saltness necessary to the existence of so many species of fishes.

In each of these three States, therefore, we have a vast body of inland water, made up in part, on the one hand, of the flood of great permanent rivers, and in part, on the other, of the flood which the tides, coming up from the ocean, have brought in through a single narrow mouth, or a couple of small inlets. In their physical advantages, Chesapeake Bay and the Carolina Sounds are unique, and it follows that they form the most remarkable feeding and breeding grounds for fish to be found within the inner coast line of North America.

All the records of the first settlers along the shores of these waters prove that, in the beginning, before the work of depletion had begun, the quantity of fish that was observed there rose to almost incredible proportions. We are informed by the early historians that their abundance was so extraordinary in the tributaries of the Chesapeake that the Indians were in the habit of killing them with ordinary sticks—that after the annual migration of certain kinds from the ocean had taken place, the brooks and creeks so teemed with their number that it was impossible to ride a horse into the water without treading on them—that in the breeding season the air along the streams fairly stank from the decaying carcases of those that had died from starvation, or exhaustion, before they were able to return to the sea. Smith, in one of his voyages up the Chesapeake, found the schools of fish playing upon the surface of the water so thick that he and his companions scooped them up with frying pans. So numerous were the sturgeons, that Sir





A street and the sea wall of Galveston, Texas.

REESE LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA

Thomas Dale, at one cast of the net in James River, brought up five thousand as large as cod. At another cast of the net off Smith's Isles, enough fish of all kinds common to those waters were caught to afford a full loading for a small frigate. Everywhere at the mouths of the rivers, banks of oyster shells rose like so many rocks in the stream. One historian has recorded that, in these early years, he had seen oysters which had grown to a length of thirteen inches, and that one crab was often sufficiently large to form a meal for four men.

A reckless use, during three hundred years, of these extraordinary natural stores has not been able to exhaust them, though they have been seriously diminished since the first settlements were made along the shores of the Chesapeake and the Carolina Sounds. The ocean still continues at regular intervals to send up a mighty host of fish, not all of which can be destroyed, but the different kinds haunting these inland waters throughout the year have suffered a great falling off in number in consequence of the relentless pursuit of them by their enemy, man. So far as is known, however, no local species of fish, like several of birds, has been either exterminated, or driven away to safer waters.

The varieties which Smith names in his history are found to-day in the Chesapeake and the Carolina Sounds and their tributaries. The principal kinds are still the alewife, or herring, bass, carp, drum, menhaden, shad, mullet, sheepshead, perch, sturgeon, crab, oyster, clam, and terrapin. Other kinds of almost equal importance are the bluefish, butterfish, hogfish, eel, pike, pompano, shrimp, spot, squeteague, croaker, turtle, and Spanish mackerel.

The most valuable fisheries belonging to any commonwealth in the Middle Atlantic region are those belonging to Maryland; the greater part of Chesapeake Bay lies in this State, and it is along its shores that the principal ones are established. Every county in Maryland, with one exception, is situated either on Chesapeake Bay, or on its tributaries, and thus, as a whole, the State enjoys unique advantages in

its fishery interests. Its chief rivers for a long distance before they empty into the bay are mere arms of the bay itself both in width and depth; the most important are the Potomac, Susquehanna, Poconoke, Patuxent, Chester, Choptank, Nanticoke, and Wicomico. The fisheries carried on along the shores of these streams are almost as valuable as those carried on along the shores of the bay. Every village near the edge of river or bay is supported chiefly by the income from the water. The principal centres of the fishery trade are Baltimore, Annapolis, and Havre de Grace on the western shore, and Crisfield, Cambridge, and Oxford on the eastern.

The most important product of the Maryland fisheries is the oyster. In value it constitutes about 80 per cent of the entire annual catch of the State. The principal fisheries are in Dorchester County; here about 1,352 dredges and 2,777 tongs are employed in collecting the oysters. These instruments alone represent an invested capital of $35,442. The dredges are used in the vessels that venture far off shore, where the water is deep, while the tongs are used in the fisheries from or near the shore. Taking the State as a whole, we find that in 1897, which is fully representative of recent years, the quantity of oysters caught by dredges amounted to 21,732,473 pounds, valued at $1,204,194, while the quantity caught by tongs in the same year was equal to 29,052,065 pounds, valued at $1,681,008. The canning of oysters has become one of the leading industries of Maryland in recent years; the annual value of this product is about $1,540,690. The principal centre of the business is in Baltimore, but both Crisfield and Cambridge are also centres of importance. Some idea of the value of the trade in oysters in this State may be obtained from the fact that of the $6,664,297 derived in 1897 from the wholesale trade in fishery products, $5,287,744 was derived from the sale of oyster products alone.

The catch of soft crabs in 1897 came to 12,347,637 in number, and that of hard to 15,999,948. The total value

of the two was about $217,586. The leading county in the crab fishery is Somerset. This fishery is carried on chiefly along the shore, and in consequence we find that in this county the number of crab dredges for shore use is much greater than the number for use on vessels seeking deep water. The relative proportion is 2,489 to 100. Considering the State as a whole, it is found that in 1897 9,940,308 soft crabs and 602,100 hard were secured by the use of the dredge in small boats. In the vessel fisheries, during the same year, the catch of soft crabs by means of the dredge was about 358,851 in number, while of hard it was only 47,601. The catch with seines in the shore fisheries did not exceed 606,816 soft crabs, but with hand lines 248,127 soft and 15,349,248 hard were secured. Crisfield is now the most extensive market and shipping point for soft crabs in the United States. Large quantities of crab meat are annually canned in Maryland.

The fisheries that are next in importance to the oyster and crab are the shad and alewife. Of shad, the largest number are taken in the waters of Talbot County, while alewives are captured in all the salt waters of the State. The value of the annual catch of these two fishes reaches a total of $283,695. The shad is caught chiefly with the gill net; the alewife, on the other hand, with the seine and pound net in addition. Among the other varieties taken in Maryland are bluefish, butterfish, carp, catfish, croakers, eels, menhaden, perch, pike, squeteague, bass, sturgeon, and suckers. At one time the diamond-back terrapin was abundant in the waters of this State, but its numbers have greatly fallen off, until now the annual catch does not exceed $3,226 in value.

There are about 42,812 persons engaged in the fisheries of Maryland. The fleet consists of 1,419 vessels, having a tonnage of 23,670, and estimated to be worth $1,078,560. The value of the different kinds of instruments used in securing the fish reaches a total of about $395,659. The entire capital invested in the fisheries, including vessels,

boats, outfits, apparatus for capture, and property of all kinds amounts to $5,821,610. The value of the catch in 1897 was $3,617,306.

In the wholesale trade in fishing products in Maryland in 1897, 15,888 persons were employed. There were, in that year, 235 establishments for the preparation of fish for market in one form or another. About one million and a half dollars ($1,615,285) represented the working capital of these establishments, which had been erected at a cost of $1,759,391. The value of their annual products was about $6,664,297.

While the larger part of the Chesapeake lies within the boundaries of Maryland, Virginia nevertheless enjoys an advantage over that commonwealth in the number of affluents of the bay which it possesses. From the mouth of the Potomac as far south as the Capes, the Chesapeake itself on both sides is hugged by the territory of the State. The western shore of that great body of water is indented in Virginia with the estuaries of some of the largest streams on the Atlantic coast, such as the Potomac, Rappahannock, York, James, and Elizabeth. These are broad bays in themselves, and run far up in the land. The Potomac to Quantico, the Rappahannock to Port Conway, the York to West Point, the James to City Point, and the Elizabeth to Norfolk are more like arms of the sea than rivers with currents flowing downward to the ocean. Up to these points the tides ebb and flow as in the main body of the Chesapeake itself. In addition to the wide gaps in the shore line made by the estuaries of these rivers, we find a number of small bays, like those at the mouths of the Pianketank, Severn, Lynnhaven, Nansimond, and the Ware. No equal area of the world's surface, perhaps, leans more extensively on tidewater in a greater variety of ways—creek, river, bay—than Virginia; thirty-four counties of the State are washed by tides from the sea, though only three, Accomac, Northampton, and Princess Anne, are situated directly on the ocean.

From the point of view of their fisheries, the most important counties in Virginia are Accomac, Lancaster, Northumberland, Middlesex, Elizabeth City, Norfolk, Mathews, Northampton, York, and Gloucester.

The same species of fish are found in the waters of Virginia as in the waters of Maryland. In treating of the annual catch in the former State, however, it will be more convenient to make the division according to the outcome of the different methods of capture. The most popular apparatus there for this purpose are the dredge and tong, the pound net, the purse seine, and the gill net. The dredge and tong are used in the oyster industry, the principal fishery of Virginia, as it is of Maryland. A few years ago the legislature of the State directed that a thorough survey of all the natural oyster rock in the public waters should be made; Captain James B. Baylor, a distinguished member of the United States Coast and Geodetic Survey, was appointed to do this work; and the maps of the natural rock known as the Baylor Survey now constitute the records of the commonwealth's property in the oyster beds. The laws relating to the lease of the rock have been carefully recodified, and the policy of protecting private oyster culture has been strictly followed. Under the influence of this policy over 35,000 acres of oyster ground have been taken up for planting purposes; the rapid falling off in the productiveness of the public reefs has thus been permanently checked, and there is now a good prospect that the oyster industry will reach a degree of importance unexampled in the past history of the State. The Cherrystone and Lynnhaven varieties still retain their reputation as the finest grown in American waters.

In the course of the last twenty years, while the value of the oyster product of Virginia has fluctuated very much, the value of the product has, on the whole, increased.

The number of persons interested in the oyster industry, either as fishermen or in transporting the product, has steadily grown until there are now over 18,000 engaged in it.

In 1897, the wholesale trade in canned oysters of Virginia packing reached a total of 595,200 one pound and 81,600 two pound cans, valued as a whole at $45,524. There is no large centre in the State near tidewater where facilities for canning are provided, and this branch of the oyster industry, in consequence, is not yet developed on a great scale. When Norfolk and Newport News have made further advances in wealth it is probable that they will perform the same part in the oyster canning industry of Virginia that Baltimore has long done in that of Maryland.

The crab is caught chiefly in scrapes, dip nets, and hand lines. The crab fisheries of Virginia are less profitable than those of Maryland; in 1897, the yield in this variety of shellfish reached about 5,500,000 pounds, valued at $68,245.

In 1897, there were 1,250 pound nets in the waters of Virginia, an increase of 1,098 over the number in operation in 1880, and 562 over the number in operation in 1887. Over 850 pound nets are set every spring on the western side of Chesapeake Bay within an area spreading from north to south seventy miles and west to east ten; this takes in not only the portions of the bay situated along the line of straight beach, but also the mouths of the different streams. Further up these streams the pound nets number about 300, while there are about 100 set on the Eastern Shore. This means of catching fish is used in Virginia more extensively than in any other part of the United States.

The catch of the pound nets, which shrinks and swells from year to year, according to the number of fish entering the bay, is largely composed of shad, squeteague, croakers, bluefish, sturgeon, and Spanish mackerel. In 1897, the quantity of shad captured in this manner in the State reached the enormous total of 8,035,114 pounds; of squeteague, 5,184,428 pounds; and of croakers, 2,742,049 pounds. The entire quantity of fish secured by the same means in that year amounted to 37,467,620 pounds, valued at over a half million dollars.

Vast quantities of fish are also taken with the gill net. In 1897, there were 9,307 of these nets in use in the State, and they contributed to the annual catch about 4,053,779 pounds, chiefly of shad, sturgeon, herring, and striped bass, valued at $110,206. In 1891, the yield was 4,857,214 pounds, valued at $124,617.

The haul seine fisheries of Virginia, at one time so important, are not now carried on in as extensive a way as formerly, owing to the larger use made of pound nets, gill nets, and the like, in consequence of their greater cheapness, and also of the greater convenience in handling them. At the last available enumeration (1897), there were only 107 in use in the State, as compared with 178 in use in 1891. The catch of fish, which included shad, squeteague, alewives, and striped bass, amounted to 5,282,251 pounds, valued at $68,260.

The seine, however, is still very much used in capturing menhaden, a fish valuable only for its oil and as a fertilizer. How enormous is the number of this variety secured in a fair season, is shown by the figures for 1897; in that year, the catch came to 263,203,000. The yield of oil, however, was not so great as in 1891, when 396,575 gallons were obtained from 191,365,500 menhaden. In 1897, the quantity of scrap produced amounted to 21,434 tons, valued at $331,227. There is invested in the menhaden factories of Virginia nearly $200,000, with a working capital of over $115,500. Some of these factories are so well equipped that they can handle 2,000,000 fish a day. There are about 42 steam and sail vessels engaged in this industry.

The number of persons who take part in the fisheries of Virginia, either directly or indirectly, is computed to be about 28,277; this embraces those who are employed in the transportation of the fish, and in the various departments of the wholesale trade, as well as those who work in the menhaden and oyster factories. About 1,055 vessels and 10,302 boats are engaged in the different branches of the business. Including the cash capital, the total investment in

the Virginia fisheries amounts to $2,891,536. The annual catch is valued at about $3,500,000.

North Carolina possesses an interior coast line almost as extensive as that of Maryland and Virginia; if we include the sounds, estuaries, and other indentations, it will be found that this coast line stretches a length of nearly 1,500 miles. It is particularly well adapted to fisheries because there are along it no high and rocky shores, and also because there are vast areas of comparatively shallow water in which seines and various kinds of nets can be used to special advantage. The inner coast line is broken by the estuaries of numerous streams, while the outer stands as a bulwark against the full force of the ocean tides, which, however, find an entrance through several large inlets. Between the outer and inner coast lines, there are seven sounds, namely, Currituck, Albemarle, Croatan, Roanoke, Pamlico, Core, and Bogue.

Currituck Sound, which covers an area forty miles long and three to four in width, is yet nowhere of a greater depth than nine feet. Owing to its having no direct communication with the ocean, the water, except in very dry weather, is fresh, and, therefore, only frequented by fish that haunt water of that character. Albemarle Sound, which spreads over an area of four hundred and fifty square miles, is sixty miles in length, with an average width of six to eight. It is only during periods of drought that the waters of this sound become salt or brackish. It is especially remarkable for its level bottom, its uniform depth, and its exemption from strong currents and tides, which allows the free use of every sort of device for catching fish. Eight rivers flow into Albemarle Sound; and their estuaries, especially those of the Chowan, Roanoke, Pasquotank, and Alligator, are among the principal fishing grounds of the State. Roanoke and Croatan Sounds, which lie nearer to the ocean, cover an area of seventy-five square miles. Roanoke, like Albemarle and Currituck Sounds, is very shallow. Pamlico Sound is, with the exception of Long

Island Sound, the most extensive in the United States, with an area equal to 1,860 square miles. Its average depth does not exceed fifteen to twenty feet. The mouths of the Pamlico and Neuse, which empty into this sound, form broad estuaries of an importance in the fisheries second only to that of the sound itself. Core and Bogue Sounds spread over an area of about 165 square miles; the average depth of their waters does not exceed four or five feet.

It will be seen from this brief enumeration that North Carolina possesses a series of sounds, all, like Albemarle, distinguished for a depth of a few feet only, and for bottoms uniformly level; and though communicating with the ocean, yet protected from the rush of its strong tides and currents. With water in some parts fresh, in other parts brackish, in still other parts thoroughly salt, it follows that these sounds attract vast shoals of fish, some denizens of fresh water only, some of salt, and some able to live in either. As their depth is shallow, their currents lazy, and their shores low and sandy, every apparatus employed in the fisheries can there be used to the highest advantage and with little risk of loss. The combination has produced one of the most important fishing grounds in the world.

The most valuable of all the fisheries of North Carolina is the shad. The largest quantity of this variety is caught with seines, to which the shallow waters and low shores of the sounds are especially suited; the number in use in Albemarle Sound is perhaps the greatest in the United States; and the same means of catching this fish is employed in Croatan Sound, though the gill net is chiefly used here. Both steam and horse power are brought to bear in working these enormous seines; it is estimated that about $160,000 is invested in realty and personalty in connection with their operation in the waters of Albemarle Sound and its tributaries alone. The value of the annual catch here, which consists principally of shad, aggregates about $176,000. The product of the shad fisheries of the entire State is estimated to be worth about $362,811. Of the whole quantity of this variety

captured, which averages about 8,960,000 pounds a year, nearly one-half is taken in the waters of Dare County alone.

The two counties which occupy the leading position in the fisheries of this State are Dare and Carteret. In Dare, about fifteen hundred men are engaged in this branch of industry; in Carteret, about nineteen hundred; and the value of the annual catch in the two counties is about $515,000. The value of the annual catch in Dare County alone is nearly equal to that of the entire fisheries of Georgia and Florida. The principal apparatus in use in this county are gill and pound nets. It is estimated that the catch of the gill nets throughout the sounds comes to about 3,348,577 pounds of fish, valued at about $175,388; on the other hand, the value of the catch of the pound nets is very much smaller ($123,606), though the quantity of fish thus secured is larger. They are, however, not so good in quality. There are about 1,125 pound nets set in Albemarle Sound and its tributaries, and about 1,200 persons are employed in looking after them. The use of this apparatus for catching fish has steadily increased; in 1880 there were only 117 in the entire State; by 1890 they had grown in number to 950. In 1895, the value of the catch by the pound nets in Albemarle Sound and its tributaries alone was nearly double the value of the catch by the same means in the State at large only five years before.

The most valuable fishes, in addition to shad, caught in the waters of North Carolina are herring, mullet, squeteague, bluefish, and striped bass.

With the decline of Chesapeake Bay and its tributaries as a productive oyster ground, owing to the reckless waste and the injurious methods of securing oysters which for years have prevailed, greater attention has been directed to the Sounds of North Carolina as breeding spots for this, the most valuable variety of edible shellfish. The increasing demand for oysters has also given a new value to the area of North Carolinian waters suited to their culture. Large divisions of the different sounds, in consequence of their

freshness, are not adapted to oyster culture; but wherever the tides from the ocean enter and make the waters sufficiently salt, there the culture of the oyster can be carried on as successfully as in Chesapeake Bay itself.

The first step taken by the State to develop its oyster interests was in 1885, when a survey of its oyster grounds was begun by Lieutenant Francis Winslow, U. S. N., who, at the State's request, was detailed by the national government to do this important work. By this survey all the public natural rock has been carefully defined and laid off, an enormous area of ground has been taken up, and laws have been passed that protect the industry from all manner of depredation. One variety of oyster produced in the State—the New River—has won a wide reputation, and others are certain to come into equal popularity.

Considering the State as a whole and embracing in the general estimate every branch of its fisheries, it is found that the product of North Carolina in fish is equal to about 64,234,257 pounds per year. This at a fair price represents a value of $1,316,017. The capital invested in this department of industry amounts to about $1,218,459, and 12,000 persons are employed in the pursuit.

One of the most important marine laboratories in the United States has recently been established at Beaufort in North Carolina. The funds for its erection were appropriated by Act of Congress. This spot was chosen as the site of a biological station because the waters in its vicinity are annually visited by a great variety of fish, some belonging more particularly to the northern seas, others to the southern. The biological building contains aquaria for both fresh water and salt water species; the equipment for dissection and examination is of the most advanced pattern; and there is every improved contrivance for securing specimens of sea forms, not only in the area of the sounds, but also as far out in the ocean itself as the Gulf Stream. For purposes of collection, a special steamer has been placed in the service of the station.

The fisheries of South Carolina, Georgia, and Florida are of small importance in comparison with those of Maryland, Virginia, and North Carolina. According to the last report of the United States Commissioner of Fish and Fisheries, issued in 1900, there were in those three commonwealths only 5,142 persons employed in this branch of industry, and the capital invested in it did not exceed $610,373. The total catch in 1897 amounted to only 161,562,008 pounds, equal in value to about $517,138.

Georgia in recent years has endeavored to develop its various fisheries by the passage of protective acts, the appointment of fish wardens to enforce these laws, and the free distribution of practical information relating to pisciculture. There are now a considerable number of oyster canning factories in the State. The Oemler establishment on Wilmington Island has a packing capacity of 1,400,000 cans a season. In one county alone, Chatham, there are as many as 2,000 persons employed in the same business. At Brunswick there are several establishments of the same kind which obtain their supply of oysters from the very extensive beds situated in the neighboring waters.

Louisiana also is beginning to develop the great natural advantages which it possesses for oyster culture along its extended Gulf coast. Captain James B. Baylor, who made the survey of the natural oyster rock of Virginia, has recently completed a similar survey for the Commonwealth of Louisiana. It is estimated that with the shore line of salt water bays, bayous, inlets, lakes, and islands the coast of this State runs out to a distance of at least 1,500 miles. As the crow flies, from point to point, without considering any of the curvatures, the length of the coast is about 600 miles, and everywhere along it are to be found grounds admirably suited for oyster planting. Texas possesses advantages equally as great for oyster culture, and the people of both States can rightly look forward, if that culture is carried on with good judgment, to supplying the Western States with this kind of shellfish. In time both Galveston

and New Orleans should become as important as Baltimore as centres of oyster packing and canning, with a market ever broadening as the commercial intercourse with South America and the far East increases.

If we consider the salt water fishes of the South as a whole, it is seen that there are few other parts of the world's surface which are endowed with as great an abundance or as great a variety of such fishes. The Southern States are not only unexcelled in the quantity and quality of their salt water fish, but are also unsurpassed in the quality and quantity of their fresh water fish. Beginning at the Susquehanna, we have a succession of great rivers flowing down from the Appalachians into the Atlantic Ocean or the Gulf of Mexico. The Potomac, the James, the Roanoke, the Chattahoochee, the Tombigbee, the Pearl, the Mississippi, the Sabine—such are the names of only a few of the noble streams whose tributaries intersect every part of the Atlantic and Gulf slope watershed. West of the Appalachian Range, the Tennessee, Cumberland, and Ohio pour into the Mississippi their floods drawn from an area that spreads over a thousand miles. South of the Ohio's mouth the valley of the Mississippi is threaded, both on the western and eastern side, with the channels of great streams; among others the Yazoo, the Arkansas, the Red. The smaller rivers are almost countless. Whatever part of the Southern States we may visit, there we come upon a finely watered region; and every stream is the haunt of many varieties of fish, which in season contribute abundantly to the sustenance of the people. In former times it was the custom of the proprietors whose estates bordered on the large rivers to have regular fishing shores where the seine was hauled when the annual run of the fish began. These shores are not now so frequent; the hook and line has taken the place of the seines; but at all the principal falls, traps have been built where many varieties of fish are captured. Private fish ponds also are by no means rare. It is impossible to estimate the quantity of fish obtained from these different

sources with any approach to accuracy, but there is no reason to doubt that it is enormous.

There are already many signs that the people of the Southern States bordering on tidewater are beginning to awake to the full value of the extraordinary advantages which they enjoy in their fisheries. Formerly, the very extent of these advantages led to thoughtlessness and recklessness in their use, just as there was a spirit of thoughtlessness and recklessness in the use of the innumerable other natural blessings which the Southern people possessed at first in equal abundance. A wiser spirit now prevails, largely in consequence of the destruction which has followed a wasteful policy covering a long series of years. Everywhere, we see now an endeavor to protect the most important fisheries by the adoption and enforcement of strict regulations, and also by the introduction of all the most improved methods for increasing and varying the supply. Each Southern State with large fisheries has now a commissioner, who acts as the guardian of the fishery interests of that State, and these men, as a rule, are persons who have had a long practical experience in the special department which they supervise. All the means now operating for the preservation and enlargement of the fisheries of the South are certain to grow more and more effective as time goes on, until finally this branch of industry will become a source of wealth to the Southern people perhaps unsurpassed by any other in their possession.

CHAPTER VIII

PRODUCTS OF THE MINE

PERHAPS in no department of industry has the South shown more extraordinary growth, of late, than in the department of her mineral possessions. The output of all her mineral products for the years 1882, 1890, and 1900 proves how great has been the rise in the value of this source of wealth. The total value for 1882 was $10,617,930; for 1890, $39,437,895, and for 1900, $101,945,099. Maryland alone is not included in the preceding figures; the value of its mineral products, the most important of which is embraced in later figures on coal, would swell the value of the entire output of the Southern States in 1900 to over $115,000,000. The mineral products of the South, exclusive of Maryland, had increased by 1900 to nearly ten times their value in 1882, an interval of only eighteen years. The most extraordinary advance was in West Virginia, where the rise in value was from $1,986,665 to $47,055,384, while in Alabama the rise was from $1,345,865 to $13,701,505.

The mineral products which show the most remarkable expansion in value, owing entirely to the greater quantity brought into the market, are iron ore, coal, petroleum, stone, clays, phosphate rock, and natural gas.

The increase in the quantity of iron ore mined throughout the United States is directly attributable to the enormous growth in the course of the last twenty years in the demand

for the finished product in almost every branch of trade. The present age is justly known as the Iron Age, and mankind may look forward to far more extraordinary advances in the use of this metal than have yet been observed, astounding as the present stage of development is as compared with that of no very remote past. Iron is entering more and more into every form of structure and is rapidly displacing lumber wherever special strength and durability are required. Its use in large buildings, bridges, and steamships is steadily increasing. Steel freight cars will in time be substituted for wooden. Larger and larger quantities of the metal are absorbed from year to year in the manufacture of all kinds of agricultural, textile, mining, and electrical machinery; of all sorts of tools; of every variety of hardware, and of a thousand other appliances too numerous to be mentioned by name.

It was not until after the close of the War in 1865 that the laying down of railroads began in the United States on a great scale; and it was not until ten years later that an extraordinary stimulus was given to the construction of iron and steel ships. About the same time the erection of iron and steel buildings was started. It was not, however, until 1887 that armor for ships was made in large quantities in the United States, and not until 1890 that tin plate and steel cars became the product of important branches of manufacture. It is chiefly due to the extraordinary demand for iron to meet the needs in these special departments of business that the digging of iron ore in very recent years has shown such a phenomenal rate of increase.

The deposits of iron ore in the South are found in extensive beds in Virginia, West Virginia, Tennessee, Kentucky, North Carolina, Georgia, Alabama, Texas, and Arkansas. There is embraced in these deposits every kind of ore—the magnetic, the different varieties of red hematite, the brown hematites, and the carbonites. The fossiliferous red hematite occurs in such large seams that it is mined with unusual ease, and it is made additionally profitable by the fact that

it is frequently discovered quite close to deposits of coal and limestone. This is one of the conditions that has given such an extraordinary value to the deposits of this variety of ore in the region around Birmingham and Chattanooga. The largest bed of Bessemer ore in the South is situated in the Cranberry district in North Carolina.

The production of iron ore in the Southern States has grown steadily in volume since 1882, though the fact that it has not been found suitable for the manufacture of steel by the Bessemer process has undoubtedly tended to discourage the mining of it. Now that there is such a growing demand for steel made by the open hearth process, to which Southern iron is so well adapted, the quantity of iron ore dug up in the South is certain to increase at a much more rapid rate. In 1882, the production was valued at $2,877,776; eighteen years later (1900), the value of the amount produced had risen to $5,369,105, an advance of not quite one hundred per cent. The four leading States in the mining of iron ore are Alabama, Virginia, West Virginia, and Tennessee.

The iron ores of Alabama were, in 1900, rated at a lower figure than the ores of every other Southern State except Texas. Though the combined product of Virginia and West Virginia, in that year, was two-thirds smaller in volume than the product of Alabama, its value was computed to be equal to more than one-half of the value of Alabama's output. The value per ton of the iron ore of Virginia and West Virginia, in 1900, was $1.62; on the other hand, the value of the Alabama ore was only 95 cents. The value of a ton of Tennessee ore was, in the same year, $1.13, while the value of a ton of Maryland ore was $2.13, the highest figure noted in the list of Southern iron ores. The low rating of the Alabama ore shows the extraordinary cheapness with which it is mined rather than any peculiar inferiority in the character of the ore itself.

The only deposits of pure anthracite coal in the Southern States are found in Virginia. But the quantity of it mined

there each year is very small. The principal beds of coal in the South are bituminous, and they lie in five distinct regions: (1) The basin near Richmond, Va. (2) The basins along Deep and Dan Rivers in North Carolina. (3) The field in the Appalachian chain spreading from Maryland to Northern Alabama, a distance of nine hundred miles, with a width ranging from thirty to one hundred and eighty miles. (4) The Kentucky basin, which is a prolongation of the Indiana and Illinois field; and, finally, (5) The Arkansas and Texas basin, which in its turn is a prolongation of a field that takes in Iowa, Kansas, Missouri, and the Indian Territory.

According to the most careful estimates, the coal seams of the Southern States underlie an area of 55,279 square miles; and of this vast extent of territory at least 47,000 square miles contain deposits of coal of sufficient thickness to be worked. Although the South occupies only 22½ per cent of the entire surface of the United States, it yet possesses 33⅓ per cent of the coal beds that can be mined with profit.

The regions containing the largest deposits of coal are Western Maryland, West Virginia, Southwest Virginia, Middle and West Tennessee, Northern Alabama, and Arkansas.

The most important coal seam in Maryland passes through the Cumberland region, while the principal coal districts of West Virginia are the Fairmont and Elk Garden in the northern part of the State, and the New River, Kanawha River, and Pocahontas in the southern part. It is estimated that these six great coal fields alone could, for a period of sixty-four years, supply the entire world at the present annual rate of the world's consumption, namely, 800,000,000 tons. In two of the fields, New River and Kanawha River, there are still 1,715,000 acres of coal land untouched by the miner's pick.

The principal coal field in Virginia is an extension of the deposits of the Pocahontas district in West Virginia.

In North Carolina, the coal region is confined to two comparatively small areas, namely: (1) the Dan River field, which, though thirty miles long, is only two to four miles in width; (2) the Deep River field running across the State in a southwesterly direction. It is about fifteen miles in breadth at its widest point. These two seams range respectively from two to seven and three to five feet in thickness.

There are three extensive coal fields in Alabama, namely, the Warrior, the Cabara, and the Coosa. The most important is the Warrior, which spreads over 7,810 square miles, and contains, according to the latest estimates, not less than 37,500,000,000 tons, an amount sufficient to cover 500 square miles with a bed of coal seventy-five feet in thickness; and, at a rate of consumption equal to 10,000 tons per annum, capable of lasting 10,275 years. The Cabara and Coosa fields extend respectively over an area of 400 square miles. The Cabara seam is thought to have a thickness of 500 feet. The Alabama fields run as far as northwestern Georgia, but the deposits in the latter State are very much smaller in quantity.

The principal coal fields of Tennessee are found on the Cumberland tableland, where they lie at an altitude of 900 to 2,250 feet above the sea level. The Sewannee seam is one of the most valuable in the Southern States.

The working of the vast coal fields of the South did not begin in earnest until 1880. Five years earlier the amount of this commodity produced in this part of the United States was only 4,600,000 short tons, and of this quantity, the greater proportion was mined only in Maryland and West Virginia. It was not until 1873 that Tennessee and Kentucky were added to the list of coal producing States; and it was not until 1873 also that West Virginia started to dig into the enormous coal seams that underlie its southern counties. In 1880, the total production of the Southern States was computed to be 6,034,257 short tons, which, however, was only 8.4 per cent of the entire coal output of the United States for that year. In 1885, the output

of the South rose to 13,052,356 short tons, an increase of 100 per cent in five years. In this year, 11 per cent of the national coal output was mined in the Southern States. In the interval between 1885 and 1890, the coal product of these States rose to 22,170,124 short tons, a second increase in five years of nearly 100 per cent. Outside of the South the rate of increase had not exceeded 20 per cent.

In spite of the interval of depression following the financial panic of 1893, the rate of coal production in the Southern States continued to advance. By 1895 the quantity mined had risen to 30,839,423 short tons; five years later, the annual output had reached 49,247,119 tons, an increase of 66 per cent. At the end of two decades the product of these States in coal was twenty-five times larger in volume than it had been at the beginning of that period. In 1870 there was mined in the South one ton of coal for every six inhabitants; by 1890 the proportion had expanded to 1.12 ton per capita, and ten years later to 2.09 tons.

In 1880, the Southern States produced only 1.6 per cent of the entire coal output of the world; at the end of ten years, their proportion had grown to 6 per cent. In 1900, only two countries of Europe surpassed these States in the volume of coal they annually mined, namely, England and Germany.

Of all the coal producing States of the South, West Virginia has, in recent years, made the most extraordinary progress in developing this section of its mineral wealth. In but one year alone during the course of the two decades previous to 1900 did the output of its coal mines show a decrease, and this was directly attributable to a long strike among the operatives. Including even this exceptional year in the calculation, it will be found that the average increase per annum during the last twenty years exceeds one million tons. The total output of its coal mines in 1880 was 1,568,000 short tons, and at the end of ten years more this output had swelled to the enormous amount of 22,647,207 short tons, valued at $18,416,871. This

represented an increase in twenty years of 21,079,207 short tons, an annual average increase of 1,053,960. The State, in the volume of its coal production, now takes rank after Illinois and Pennsylvania. Over thirty thousand operatives are employed in its mines.

No commonwealth in the South is so conveniently placed as West Virginia for sending its coal to market. The Baltimore and Ohio railway carries off to Baltimore the product of the mines in the northern parts of the State; the Chesapeake and Ohio to Newport News, the product of the mines in the Kanawha Valley; and the Norfolk and Western the product of those situated in the Pocahontas region. From all these points, after passing the Alleghany backbone, there is an almost continuous grade downward to the three great seaports, which allows very long and heavily laden coal trains to be moved by a head of steam which represents the most extreme degree of cheapness, in that respect, in transportation. Some of the most extensive fields of coal in West Virginia are in easy reach of Ohio River, and by means of this stream and the Mississippi, a vast quantity of this commodity can be shipped to New Orleans for export, or to the principal cities in the intervening region for local consumption. The different varieties of coal found in the State are not only excellent for domestic fuel, but they are also without a superior in the production of steam, and the manufacture of coke.

A special reputation as a steam producer is enjoyed, both at home and abroad, by the coal of the Pocahontas field, which lies partly in West Virginia and partly in Virginia. The increasing demand for it is shown in the history of coal exports from Norfolk since 1890; during that year, in a total shipment of 1,152,507 long tons, only 37,723 were consigned to foreign countries, while in 1900, in a total shipment of 2,113,354 tons, the consignment to foreign countries amounted to 524,558. In the course of this year, coal was sent out from the piers at Lambert's Point to lands as remote from the United States and each

other as Japan and Buenos Ayres, Austria and South Africa. On one day, January 15, 1900, there was anchored near these piers the largest coaling fleet perhaps that was ever before assembled in either American or foreign waters; ninety-one vessels, including steamers, schooners, and barges were present awaiting their turn to load.

Alabama stands second in the rank of the coal producing States of the South, and fifth in the rank of those of the Union at large. In 1870, the output of its mines did not exceed 13,200 short tons; six years later, the output of coal had increased to 112,000. At the end of another decade (1886), the product of the State had grown to 1,800,000 short tons, with a total value of $2,570,000, and an average value to the ton of $1.43, the highest recorded in the history of the commodity in Alabama. In 1888, just two years later, the production mounted up to 2,900,000 tons, an increase of 1,100,000 tons. With the exception of 1894, the year following the panic, when there was a falling off, the increase in the total output from year to year was kept up to such an extent that, by 1898, it had risen to 6,535,283 tons, and, by 1900, to 8,394,275, valued at $9,793,785. In the interval between 1889 and 1900, the number of operatives had grown from 6,975 to 13,967; and during the same period, the most improved patterns of machinery for mining coal, whether impelled by air or electricity, had been introduced with the result of greatly reducing the cost of production.

With the rapid growth in the output of Alabama, Mobile has become an important shipping point for the coal of that State; in 1883 the receipts at this city were only 26,304 tons, but by 1900 they had increased to 292,960 tons. Much of this coal was consumed by the large number of steamers which now ply between Mobile and Spanish-American ports.

Kentucky occupies the rank of third coal-producing State of the South, and that of seventh among the coal-producing States of the country at large. In 1876 its total

output was estimated at 650,000 short tons; four years later (1880), this output had increased to 1,000,000; and by the end of the following decade (1890), to 2,701,490 tons. From this time down to 1900 the amount of coal mined continued to enlarge, until in that year it reached 5,328,964 tons. Nearly one-half of this output was mined with improved appliances; in 1898, 158 machines were in use; and in 1900, two years later, 239. In the course of ten years (1890–1900) the number of operatives, in spite of the introduction of labor-saving apparatus in the meanwhile, grew from 5,259 to 9,680.

In the volume of its production of coal, Maryland takes rank as the fourth State in the South and the eleventh in the Union. For many years its coal mines have been developed almost to their full capacity, and, in consequence, the increase in their output has not been at a rate as remarkable as that observed in other Southern commonwealths. In 1886 the total product came to 2,517,577 short tons; four years later (1890), it had grown only to 3,357,813 short tons. In the interval between 1890 and 1900 there were many fluctuations in the volume of the output, until at the end of this period (1900) the amount of coal mined exceeded the amount mined at the beginning (1890) by only 666,875 tons. In a measure, the smallness of this increase is attributable to the frequent strikes, which have obstructed work in the coal regions of this State. The number of employés in 1890 was 2,842, but by 1900 had grown to 5,319.

Tennessee takes rank as the fifth coal-producing State of the South and the thirteenth of the Union. In 1876 its total output of coal did not run over 550,000 short tons; four years later (1880) the output had increased to 641,042 only, but by 1890 had trebled in volume (2,169,585 tons), and by 1900 had nearly sextupled (3,708,562 tons). The volume of the product for 1900 was double the volume of that for 1893; it was also 11 per cent greater in quantity than the output for 1899, and 44 per cent greater in value.

It is perhaps owing to the fact that Tennessee has not made extensive use in its mines of the most highly improved machinery that the number of its coal operatives is very much larger than the number employed in Maryland, though the production of coal in Tennessee is very much smaller. In 1890 the number of coal miners in this State was 5,082, and in 1900, 8,246. Maryland, as we have seen, had 5,319 in 1900.

Virginia takes rank as the sixth coal-producing State of the South and the sixteenth of the Union. In 1880 its total output did not exceed 112,000 short tons; at the end of eight years the amount of coal taken from its mines had increased to 1,073,000 tons. In the course of the next half-decade, the volume of production fell off, but in 1894 it rose to the largest proportions in the history of the commonwealth down to that date, namely, 1,299,083 tons; and from this time the total annual output grew in quantity, until in 1900 it swelled to 2,393,754. In ten years the production of coal in Virginia trebled in volume and value. The number of operatives employed in 1890 in its mines hardly exceeded 1,600, but by the end of the next decade had increased to 3,631.

In the volume of its coal product Arkansas takes rank as the seventh State in the South and the nineteenth in the Union. Previous to 1880 its total output was too small to be recorded; in that year, when it first appears among the coal-producing States, the amount of this commodity mined within its borders did not exceed 14,478 short tons, valued at only $33,535. At the end of the next decade its total output had grown to 399,888 tons, valued at $514,595, and seven years later had doubled in quantity; and when three years more had passed (1900), had nearly trebled. Between 1890 and 1900, the number of operatives employed in the coal mines of Arkansas increased from 938 to 2,800.

Texas takes rank as the eighth coal producing State of the South, and the twenty-second of the Union. Its record

in this branch of development begins as late as 1889, in which year the entire amount of coal mined within its borders came to 128,216 short tons only. At the end of 1890, its total output had increased to 193,674; and in the course of the next ten years expanded to 968,373 tons, valued at $1,581,914, which represented a proportion of five to one in comparison with the total production in 1890.

Georgia takes rank as the ninth coal producing State of the South, and the twenty-fourth of the Union. In 1884, its total output was estimated at 150,000 short tons; this, by 1890, had increased to 228,339, and ten years later to 315,557, valued at $370,022. No machines are used in getting out coal in this State, and a large proportion of the operatives are convicts, who have been hired to the mine owners for a term of years.

The amount of coal produced in North Carolina is so small as to place the State, in this respect, in the lowest rank; it is, in fact, followed by but one other community, namely, Idaho, the entire output of which is computed at only ten tons. In 1890, the total quantity of coal mined in North Carolina did not exceed 10,262 short tons; in the next year, it rose to 20,335; and four years later (1895) to 24,900; but in 1900 fell off to 17,734 tons, valued at only $23,447. There were, in 1891, only eighty men at work in the coal mines of the State; and nine years after this, the number had increased to only eighty-four.

The total output of coal for the whole South, which in 1870 was 2,036,323 tons, had increased by 1900 to 49,247,119.

The most important oil fields in the United States are the Appalachian, the Californian, and the Texan. The Appalachian field begins at Wellsville in New York, and, passing through Pennsylvania into West Virginia and south-eastern Ohio, stretches across the States of Kentucky and Tennessee into northern Alabama. Of all this widespread region, West Virginia has, of late years, come to be the part that is most productive in crude petroleum. New

York and Pennsylvania, which at one time led in this branch of industry, have been steadily declining in their total annual output; West Virginia has been as steadily advancing; in 1890, the volume of production in the two great States first named amounted to 28,458,208 barrels of forty-two gallons each, and in West Virginia to 492,578 barrels only; but by 1895, the output of New York and Pennsylvania had fallen off to 19,144,390 barrels, and the output of West Virginia had risen to 8,120,125. Five years later, the production of New York and Pennsylvania had shrunk still further to 14,559,127 barrels, and the production of West Virginia had expanded to 16,195,675; in other words, in eleven years, the output of the first two States had been diminished by nearly 14,000,000 barrels, while the output of West Virginia had been swelled by over 15,000,000 barrels. In the meanwhile, the increase in the volume of crude oil furnished by southeastern Ohio had not run over 5,000,000. Of the entire output of the Appalachian oil field in 1900, southeastern Ohio produced only 15 per cent, New York and Pennsylvania about 40 per cent, while 45 per cent was supplied by West Virginia alone. Three million barrels represented the total gain in 1900, and of this enormous number the latter State could claim at least 70 per cent.

In 1900, the crude petroleum supplied by West Virginia was computed to be worth $21,922,702. If we add to this sum the value of the coal mined in the State during the same year, we shall find that West Virginia derived from the sale of these two raw products alone, in 1900, the enormous amount of $40,339,173.

Up to the present time, the production of oil in Kentucky and Tennessee has been comparatively small, though the total output of the two States has shown a steady rate of increase. In Kentucky, the output grew from 1,680 barrels in 1896 to 125,000 in 1901; on the other hand, in Tennessee, the number of barrels, from 4,325 in 1896, had grown to only 5,600 by 1901. The production of oil in

Alabama has been on a scale too insignificant to enter into commerce.

From the point of view of quickness, the most extraordinary development that has taken place in the production of oil in the Southern States occurred in the Texan field. In 1890, the output of this field was estimated at fifty-four barrels. Five years later, the yield had fallen to fifty. At the end of twelve months, it had risen to 1,450. By 1898, the volume of production had reached 546,070 barrels a year, and, by 1900, had expanded to 836,039. The most remarkable increase was yet to come; in one year (1901) the production leaped up to the enormous total of 4,350,000 barrels.

The explanation of this vast growth in the production of Texan oil is to be found in the opening up of the new field at Beaumont. Previously, the output of the State had been drawn entirely from the Corsicanna wells in Navarro County, nearly 300 miles north of the Sabine Pass on the Gulf. In this latter field petroleum was struck in a layer of quartz sand at a depth of 1,010 to 1,040 feet below the surface. This bed of sand ranged in thickness from fifteen to thirty feet. At first the wells spouted up from ten to thirty barrels of crude oil a day, but this rate has fallen off until now the output is barely one-half of the quantity obtained in the beginning.

The original oil field at Corsicanna was about four miles in length and one in breadth, but it has been gradually enlarged until it now spreads over a much wider area. The entire field in 1900 produced about 829,560 barrels, valued at $867,719. There is now at Corsicanna a great refinery built after the most advanced model, and possessing a complete equipment, with the latest improvements. The shipping point for the field is situated at Sabine Pass, where there is an enormous receiving tank, with every appliance for loading vessels with petroleum. A pipe line carries the oil from Corsicanna to the Pass.

The history of the Beaumont field is, in some of its aspects, without a parallel in the entire history of oil

production in the United States. About 1893, a company was organized to bore a well on Spindle Top Heights, Beaumont, which gave many signs of being underlain with pools of oil. The machinery, however, was not strong enough to sink deeper than 400 feet. Disappointed in his own efforts, the head of the company, who never lost faith in the ground, was instrumental in getting Captain A. F. Lucas, a mining engineer of Washington, District of Columbia, to experiment on the Heights with a more powerful apparatus than the company possessed. The first two of Lucas's wells, which went down only about 700 feet, proved to be worthless, though one of them struck within a few hundred feet of the spot where he made his third and successful attempt. At the third boring, a column of oil spouted up in the air to a height of 160 feet, and during nine days, the well poured forth a continuous stream of petroleum in a volume equal to 75,000 barrels a day. No other well operated in the United States has ever produced so great a quantity of oil in so short a time, and its record in this respect is surpassed only by a few wells near Baku on the Caspian Sea.

The successful boring by Captain Lucas took place on January 10, 1901. For some time it was feared lest the extent of the field would be confined to the narrow reach of ground in the possession of the first prospector. On March 26th, however, a well was struck about 1,700 feet from the Lucas gusher. Careful testing has shown that the entire field is pent up in an area of 120 acres, while the most productive division is limited to eighty. There are about fourteen very good wells in these restricted bounds, some of which at first spouted up a volume of oil equal to 15,000–60,000 barrels a day; the rest gave forth a quantity ranging from 600 to 4,000 barrels.

Three pipe lines have been laid down between Beaumont and Port Arthur and Sabine Pass, the ports from which the output of this field is shipped. Already a great oil refinery has been erected at Port Arthur, and another, situated not far away, is now in course of construction.

The extraordinary discoveries at Beaumont greatly stimulated the search for oil in all parts of Texas, but nothing equally remarkable has as yet been found. Many of the wells, like those at Sour Lake, for instance, have their value very much cut down by the difficulty of contending with the quicksand that rises in them and chokes the tubes. Over the entire coastal plain of Texas there are many rises in the ground resembling the famous Spindle Top Heights. The drill will in time disclose whether they rest above reservoirs of petroleum. The Texan fields run into Louisiana, and already there has been a considerable quantity of oil drawn from pools situated at several places in the latter State. Indeed, in all parts of the South there has been active prospecting in consequence of the sensational discoveries in Texas. In the different Southern States in 1901, the year in which the successful boring took place at Beaumont, 862 companies were organized for this purpose, 525 of which were in Texas.

The discovery of oil in Texas in so great a quantity has raised the question whether the crude petroleum supplied by the South will not largely take the place of coal as fuel on railroads and steamships. It has been predicted that, if the tapping of the pools in the Southern States goes on at the rate of the last few years, a barrel of oil can in time be carried to New Orleans and sold there at a profit even at seventy-five cents a barrel. Even when sold at $1 a barrel, it furnishes a cheaper fuel than coal according to recent experiments made on the Santa Fé Railroad system. In its use as fuel for steamships, it possesses three signal advantages: (1) It greatly economizes space. (2) It reduces the force of stokers now required. (3) It can be put away in the vessel wherever convenient instead of its being necessary to store it, like so much coal, very near the engines. The opinion has been expressed by some careful experts that the saving in the cost of fuel by the use of oil on one of the great transatlantic liners would fall little short in the course of a year of $100,000.

In considering the future of the production of oil in the Southwest, and the uses to which it is likely to be put, it seems highly probable (1) That it will in time take the place of coal on all the great railway lines ramifying through this region, with the result of materially lowering the local charges for transportation. (2) That it will also be substituted for coal in the sugar factories of Louisiana and Texas, and by reducing the cost of refining, extend very much the area planted in sugar cane. (3) That it will greatly increase the number of manufactures dependent on steam by affording a cheaper fuel than the coal mines of Alabama and Arkansas can furnish. (4) That it will enable the Southwest to supply the Spanish-American market, and, after the construction of the Isthmian Canal, the entire East with a large proportion of their petroleum distillates and products. Finally, and from a broader point of view, should oil really come to take the place of coal in steamships, the oil fields of the Southwest must contribute powerfully to the restoration of the national merchant marine.

CHAPTER IX

PRODUCTS OF THE MINE—(Continued)

AMONG the most important natural resources of the South which have been developed largely in recent years are the enormous deposits of phosphate rock in the Commonwealths of South Carolina, Florida, and Tennessee. The turning of these extensive beds to account has not only increased the volume of Southern exports, but also has contributed in a remarkable degree to the restoration of the wornout lands of the Southern States. It is an industry that belongs to the new era. Under the old system, there was but one that resembled it, namely, the working of marl pits with a view to using the product for the fertilization of fields deprived of certain constituents of soil by prolonged and wasteful cultivation. But as the demand for marl was purely local, no attempt was ever made to add to the wealth of the South by exporting the substance. The United States is now furnishing one-half of the phosphate consumed by all nations, and the greater part of this supply is obtained from the Southern mines. The thickness of the phosphate formation in these mines is extraordinary; as a rule, it is only measurable by hundreds of feet; and in many places, seems to be practically inexhaustible. The raw product has been found especially valuable in the manufacture of soluble phosphates.

The industry of phosphate mining began in South Carolina in 1868, only a few years after the close of the war,

at a time when the labor system of the State was still disorganized. The Coosaw Mining Company obtained the exclusive privilege of working the Coosaw phosphate beds for a long term of years, subject to the payment of one dollar a ton royalty to the State. In spite of this heavy tax, the industry was carried on profitably down to 1893, in which year the monopoly ceased. In the interval between 1868 and 1891, the quantity of phosphate rock taken out reached a total of 5,465,557 tons. After the revocation of the Coosaw Mining Company's privilege, the production fell off, and continued to do so down to 1900, as the following figures show, though, as will be observed, the rate of decline was not extraordinary: In 1893, the total amount of phosphate rock mined in South Carolina was 502,564 long tons; in 1896, 402,423; in 1899, 356,650; and in 1900, 329,173; the value of the product in the last-named year was $1,041,970. In the course of ten years, the product of the phosphate mines of South Carolina reached a total valuation of over fifteen million dollars, but the income from the same source fell off during the last five years of the same period over 50 per cent, and this loss of income has continued ever since. With the decline in the actual production of phosphate rock in the State, there has been a corresponding falling off in the quantity exported. The figures for 1890–1891 are 572,949 tons, while those for 1899–1900 are only 428,562 tons.

In 1888, twenty years after the first steps were taken in South Carolina to open up its phosphate deposits, the working of the enormous phosphate beds in Florida began, and by the end of six years, the annual quantity mined in the Peninsula was about equal to the annual output of the Carolina beds. Six years later, the product of the latter was 50 per cent less in volume than the product of those of Florida.

The principal centre of the industry in Florida is Ocala. When mining was first undertaken at this place in 1891, many companies were organized, but as the business grew



Marble Hall in the Court House at New Orleans, Louisiana.

REESE LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA

less profitable, the number of both companies and individuals engaged in it fell to about thirty. In recent years, however, new corporations, possessing a very large amount of capital and using the most highly improved machinery, have entered the field; the facilities for transportation have also been increased; and as a result of these combined influences, the total output of phosphate rock in Florida in 1899 and 1900 was the largest in the history of the industry in the State, the number of tons produced being 706,243, with a value of $2,983,312.

In the interval of thirteen years between 1888 and 1900, the value of the phosphate rock produced in Florida reached a grand total of nearly nineteen million dollars ($18,943,429). If we subtract from this sum the value of the output for the years 1888, 1889, and 1890, we shall find that the value of the phosphate rock mined in Florida during the ten years ending in 1900 exceeded the value of the phosphate rock mined in South Carolina during the same period by over three and a half million dollars. During the last six months of this period, the product of the Florida phosphate beds was valued at $12,788,939, while the product of the South Carolina beds was valued at only $5,395,562.

Since the first working of the phosphate beds in Florida began, about six million tons of rock obtained from these deposits have been exported, over one-half of which has been shipped since 1893.

The phosphate deposits of Tennessee were not discovered until 1893, five years after the first working of the phosphate beds of Florida. The rock was found lying in a stratified formation, which proved, when tested, to be the richest in bone hitherto known to commerce; its percentage of this constituent ranges from 68 to 84, while the highest percentage in the South Carolina rock is 63; in the Florida, 80; and in the French and Belgian, 78.

The principal deposits of Tennessee phosphate rock underlie the surface of Maury, Hickman, and Lewis Counties; the beds in these counties, it is estimated, aggregate

not less than 121,000,000 tons; they form in reality one great field extending a length of twenty miles, with a width of four or five. The deposits differ from those of South Carolina and Florida in the fact that they occur, not as nodules varying in shape, size, and color, but as a regular and solid mass. So far, the principal operations in securing the rock have been at Mount Pleasant, in Maury County, where the deposits contain only four per cent of iron and alumina. In 1894 the output of the mines at this place was only 4,841 tons; five years later it had grown to 550,000. The enormous increase in the foreign shipments of phosphate rock is largely due to the augmented productiveness of the beds at Mount Pleasant; and the richness of the deposits in bone phosphate is proved by the fact that four-fifths of the output of these beds is exported, because it contains the 78 percentage of this bone constituent which is required in all the rock transported abroad. The deposits in Lewis and Hickman Counties are less rich in phosphoric acid, and hence the phosphates from these mines are chiefly turned to account by mixing them with the high-grade rock from the beds in the district of Mount Pleasant. The blue phosphate rock found in Hickman County contains only three per cent of iron and alumina, but its proportion of bone phosphate does not run over sixty per cent.

Since the first discovery of the beds in Tennessee, the annual production of phosphate rock in the State has risen from 19,188 long tons in 1894 to 454,491 in 1900. The total output during this interval of seven years was equal to 1,399,290 long tons, valued at $3,404,068. The phosphate rock of Tennessee especially suited for exportation, on account of the high percentage of bone which it contains, is estimated to be worth at the mines from $4 to $5 per ton; if too poor in quality for shipment, its value ranges from $2.50 to $3.50.

The importance of the production of phosphate rock as a source of wealth to the Southern people is evidenced by the value of the output during the ten years ending with

1900, which amounted to $37,542,347. This sum also embraces the $18,000 representing the value of the phosphate rock produced in North Carolina during the same period.

The largest purchasers of the Southern phosphate rock exported to foreign countries are Germany, England, and France. During the fiscal year ending June, 1899, the consignments to Germany aggregated 270,089 tons; to England, 176,098; to France, 64,446. The rest of Europe bought about 244,615 tons.

The extraordinary demand for copper of late years has led to the careful examination of the numerous deposits of that ore which have been known to exist in certain parts of the Southern States since the earliest settlement of the country. Long before the Revolution, Colonel William Byrd, in running the boundary line between Virginia and North Carolina, found the people along the central borders very much aroused over the outcroppings of copper which had been discovered in that region, and he states that they were "neglecting the making of corn for their present necessities in hopes of growing rich hereafter." There are still to be seen in this same region a number of copper mines which were abandoned after the digging had reached a certain depth.

One of the principal copper mining districts in the Southern States is situated in the very division of country visited by Colonel Byrd so long ago; this is known as the Virgilina district from the fact that it lies equally in Virginia and North Carolina; indeed, the boundary line between the two States runs almost exactly through the centre of the belt, which is about twenty miles in length and one to two in width. It was due to the enterprise of capitalists from Pittsburg, Pennsylvania, that the first steps were taken to develop the resources of this district on a scale commensurate with their importance. So far the results have been highly satisfactory; a railroad has been built, and great quantities of valuable ore are daily brought to the surface.

The copper districts of Tennessee have also been worked with great activity under the influence of the growing demand for the metal. The Tennessee Copper Company, which owns the Ducktown mines, have striven to increase the value of their property by the use of the most highly improved machinery in both mining and smelting. New blast furnaces have been erected, and every facility adopted for handling the ore with economy and dispatch. The rate of production reached is estimated at 700,000 pounds of pure copper a month.

The copper districts of Georgia are also passing through the first stages of development in accord with the most advanced methods of handling the ore. At Oakdale in that State, the Southern Smelting Company has built very extensive and elaborate works.

The output of the entire South in copper in 1886 did not exceed 29,811 tons. Tennessee alone in 1898 produced 89,721. In 1900, the output of the Southern and Middle States combined was estimated at 378,840 tons; as in some years the Middle States produced no copper at all, while the Southern never failed to produce a certain quantity, it is probable that the far greater proportion of this large amount should be credited to the account of the Southern mines. According to the latest reports of the United States Geological Department, the value of the copper mined in the South in 1900 was $768,078, as compared with a valuation of $401,890 for that mined in 1882; but by the time 1890 was reached, the valuation had fallen off to $44,500, owing to the decline in the volume of the output. It is seen, therefore, that the increase in the income which the South derives from its resources in copper occurred almost entirely in the interval between 1890 and 1900.

The largest lead mines in the Southern States are situated in Wythe County, Virginia; the deposits here have been worked for a hundred years, but so far show no sign of exhaustion, though the most highly improved appliances for getting out the ore in large quantities are now used. Unlike

the production of copper in the South, that of lead has increased without any fluctuation since 1882, in which year, the output was valued at $1,514,071. At the end of 1900, the product of lead in the Southern States was computed to be worth $2,570,000, nearly double the estimate for the output eighteen years earlier.

Previous to the discovery of gold in California, the largest quantity of that metal produced in the United States was obtained from the mines in Georgia. Ten years before any trace of gold was detected on the Sacramento, the Federal government had established a mint at Dahlonega, which remained open until the War began in 1861. During one year alone, 1843, $500,000 in gold was coined at this mint. The deposits of the metal in Georgia belong to a formation that runs all the way from Nova Scotia to Alabama. It crops out in Buckingham County, Virginia, where, for many years previous to the War, the vein was worked to considerable profit; and of late years these mines have been again worked in the hope that the use of the highly improved machinery of the present day would be able to turn their low grade ores to good account. The gold region of North Carolina spreads over an area of nearly 10,000 square miles in the middle and western parts of the State. There the ore is found in placer beds, in quartz fissure veins, and in impregnations in schists and slates. The gold mines in this commonwealth have been recently producing about $28,500 worth of ore on an average each year; on the other hand, the value of the annual output of the Georgia mines is computed to be about $117,000. In Georgia and North Carolina, as in Virginia, the ores belong to a low grade, which can be worked profitably only when the operations are carried on with the most modern appliances. The gold output for the South was larger in 1890 than in either 1882 or 1900; in 1890 it was $318,500, while in 1882 it was $290,000, and in 1900, $273,200.

The only Southern States in which silver was mined in 1900 on a scale of importance were North Carolina and

Texas. The coining value of the output of the former commonwealth was, in that year, computed to be $14,481, and its commercial value $6,944; while in Texas, the coining value of the silver mined during the same year was computed to be $617,244, and its commercial value $295,988. In the Southern States, as a whole, the production of this metal nearly doubled in the interval between 1890 and 1900; in 1880 it did not exceed $396,669; on the other hand, in 1900 it was equal to $632,888.

It was not until 1883 that the production of iron pyrites began in Virginia; in that year the large deposits in Louisa County were worked for the first time, but owing to the want of proper machinery, the pyrites had to be sent to Europe to be tested. The result proving satisfactory, a furnace was imported and the burning of pyrites for sulphuric acid started. The output of the Louisa mines is now valued at $600,000 yearly, and it forms three-fourths of the entire product of this mineral substance in the United States.

The beds at Cartersville, Georgia, are now one of the principal sources from which the national supply of manganese is obtained. The output of these beds is about 3,447 long tons each year. Virginia produces an even larger quantity of this substance—in 1900 its output was equal to 7,881 long tons, or 67 per cent of the entire output of the United States. Together, Virginia and Georgia contribute 9.6 per cent of the total amount of manganese used in this country. Arkansas ranks as the third State in the volume of its annual production, which, however, in 1900, did not exceed 145 long tons. In all three of these commonwealths the quantity mined has varied very much in the course of the last twenty years. In Virginia, for instance, in 1886 the output was 20,567 tons, but from this time it fell off very gradually until, in 1895, it sank to a figure as low as 1,715 tons. Since 1896 the output has been rising steadily again. The annual output in Georgia has been marked by a much greater degree of irregularity. Down

to 1886 it averaged about 2,000 tons; since that year it has risen as high as 9,024, and sunk as low as 724, not by gradations, as in Virginia, but with great abruptness; thus, in 1889 the production was equal to 5,208 tons; in the following year it sank to 749; in the third year it rose again to 3,575 tons, and in the fourth it sank again to 826. A like abrupt inequality distinguishes the output from year to year of the manganese mines in Arkansas. In 1882 the value of the entire product of this metal in the Southern States was estimated at $96,935; eight years later it rose to $189,986, but by the end of 1900 had fallen to $98,465, about $1,500 in excess of the value of the production in 1882.

Bauxite, which is the principal source of the aluminum of commerce, is found only in Alabama, Georgia, Arkansas, and the Territory of New Mexico. Until 1899 the mining of this valuable substance was confined to the two former States, but in that year Arkansas appears in the list as a producer. The output of Georgia and Alabama has steadily increased. In 1891, that of Alabama was only 292 long tons; eight years later it had grown to 14,499. The output of Georgia has been marked by a like expansion; 3,301 tons in 1891, it rose to 15,736 in 1899. The joint production of the two States declined to 19,739 tons in 1900. That of Arkansas also fell off from 5,045 to 3,445 tons.

In 1900, all the asbestos produced in the United States was obtained from Georgia. This substance is mined only in this State and California. The output of Georgia for 1900 was equal to 1,054 short tons, valued at $16,310. No asbestos was produced in the South in 1890.

Georgia occupies the position of the second State in the Union in the mining of ochre. Its output in 1900 was 6,828 short tons, only 773 less than the output of Pennsylvania, which leads in the production of this substance.

There are few parts of the globe of equal area which are distinguished for a greater variety of mineral waters than Virginia and West Virginia. The mineral springs of these

two States have been famous since the middle of the eighteenth century, when the region where most of them are found began to be settled. For many years their mineral waters have been a source of great profit, both at the fountain head—to which many visitors have been annually drawn on their account—and when shipped away for sale. The alum and sulphur waters have been bottled and sold during a hundred years, but it was not until after 1865 that the lithia were placed on the market in almost equal quantities. The Buffalo Lithia Spring in Mecklenburg County, has acquired a great reputation for the extraordinary curative powers of its waters; and these waters are now disposed of to an increasing extent, not only in all parts of the United States, but also in foreign countries. The production of mineral waters in Virginia in 1900 came to 1,141,859 gallons, valued at $272,868; and this is only a small part of what its numerous springs of the finest quality are capable of putting on the market, should their resources ever be turned to the fullest account. But one State of the South exceeds Virginia in the quantity of its mineral waters offered for sale. This is Texas; its output for 1900 was 5,438,700 gallons, about five times the volume of Virginia's production, and yet the value of the Virginian waters on the counter ran ahead of that of the Texan by over $60,000. The mineral waters of Georgia are second in commercial importance to those of Virginia alone among the Southern States. Its lithia springs especially are growing in value steadily because of the increasing demand for their product. The sales of mineral waters in Georgia bring in a total sum of about $42,000 each year. Taking the South as a whole, the value of its mineral waters disposed of in the market nearly trebled in the interval between 1890 and 1900; in 1890, the amount thus obtained did not exceed $317,459; ten years later, it had grown to $904,634.

Passing to the mineral clays, we find that of late years many of the most valuable deposits have been worked to a much greater extent than formerly, owing to the larger local

demand for clay products that has attended the growth of Southern towns and cities. The same influence is certain to stimulate the development of these deposits to an even greater degree in the future; this will be especially true of the vast beds of clay that are peculiarly suitable for the manufacture of brick, tiling, and drainage pipes. The superior cretaceous clays, out of which the finer kinds of pottery and porcelain are made, are now turned to full account in many parts of the South, sometimes in meeting a demand that comes from the Northern States.

The beds of mineral clays are unusually extensive in Georgia and North Carolina. There is in Georgia a belt of clay, several miles wide, reaching from Augusta to Columbus; and from the pits in this belt a product is annually obtained that is valued at over a million dollars. Here and there throughout this region plants have been established that yearly manufacture large quantities of water and sewerage pipes and terra-cotta articles for a great variety of purposes.

In North Carolina there are enormous deposits of the mixed clay known as kaolin. It appears in the form of dikes, composed principally of a feldspar that has undergone decay in consequence of atmospheric action. These dikes are distinguished by various degrees of thickness; some are only a few inches through; others, several hundred feet. Many extend to the length of several hundred yards, and some even to the length of half a mile. Large quantities of the kaolin are now shipped annually to Trenton, New Jersey, where it is converted into different articles. Among the most valuable clays of North Carolina is one which has resulted from the decay of granite gneisses and crystals. It is found in extensive beds in many parts of the State.

After all, it shows how small, in comparison with their extraordinary wealth in fine clays, has been the development so far in this branch of industry in the Southern States that Maryland and West Virginia, the first among them in clay manufactures, produce together only 3.27 per cent of the

manufactures of this kind of the United States. Georgia and North Carolina, which, as we have seen, possess such remarkable resources in the way of this substance, contribute only 2.13 per cent of the national output. The South as a whole contributes only 13.37 per cent, though containing in its soil a variety and quantity of fine clays unsurpassed in any other part of the Union. The value of these products of the Southern States in 1899 reached a total of $12,819,725; and in the following year the value of this output rose to $14,437,669. These last figures include all branches of clay manufacture in these States.

Passing from the mineral clays to stones suitable for building material, we find that several of the Southern States contain vast beds of the purest marble, which, until recent years, have only been partially worked. Twenty years ago, the present marble quarries of Georgia lay beneath the surface of the ground practically in their virgin condition; no use was made of the wealth which they represented; it was quite as if they had no existence whatever in the soil of the State. At the present time, the production of marble in this commonwealth is only surpassed in quantity by the production of the same stone in Vermont, where the deposits have been liberally drawn upon for so many years. The annual output of Georgia is valued at $800,000, and the industry is still in the first stage of development.

The marbles of Georgia are remarkable for a great variety of coloring. Some specimens are of a pure white; others, bluish-gray in tint, diversified by dark-blue spots; others still, pink, rose, salmon, and dark-green.

Some of the noblest structures raised in the United States since the close of the War have been made, either wholly or in part, of marble obtained from Georgia; among them may be mentioned the Corcoran Art Gallery in Washington, St. Luke's Hospital in New York City, the Federal Building in Boston, Massachusetts, and the State capitols of Rhode Island, Minnesota, and Mississippi. The product of the State's deposits is now sent to all parts of the Union.

The principal seat of the industry is Pickens County; here are situated seven quarries that possess the capacity of turning out annually several hundred thousand feet. From one of the quarries of Georgia was obtained the largest block of marble that has ever been blasted out in the United States.

The principal marble beds of Tennessee are situated in the eastern part of the State; the area underlain by them is estimated to reach over about one hundred miles, with a width of about twenty. Owing to the lack of facilities for transporting the output, this marble field, one of the most valuable and extensive in the United States, has only been partially developed. The largest quarries centre in Knox County, where there are several railroads to afford a cheap and convenient means of carrying the product out of the country. The principal marble mills have been built at Knoxville. There are also numerous quarries in Hawkins County, which, however, are not worked as actively as formerly.

The marble of Tennessee is capable of a very fine polish, and is, therefore, considered to be especially suitable for the decoration of the interiors of buildings. It was used for this purpose in lining the walls of the great City Hall in Philadelphia, the State Capitol at Albany, and the National Library at Washington, three of the most notable structures erected in modern times. Increasing quantities of the marble of the State are now used as ordinary building material for exterior as well as interior finishing. It varies very much in color, the tints running all the way from light and dark pinks to grays, buffs, and drabs; an accurate idea of their depth may be obtained from an examination of the marble room in the National Capitol, the facings for which were brought from Tennessee quarries. In 1900, the quantity of Tennessee marble used in interior finishing was valued at $228,770, in a total product valued at $424,054; on the other hand, the Georgia marble similarly used was valued at only $104,322, in a total product valued at

$631,241. The amount of marble from the latter State converted into cemetery monuments in the same year did not exceed $228,407 in value; and of Tennessee marble $70,250.

Perhaps the largest single mass of granite that exists in the world is to be found near the city of Atlanta, Georgia; it is in reality a stone mountain that rises to a height of 1,686 feet, with a circumference at its base of seven miles. The granite from this mountain has proved to be of excellent quality for all branches of building and monumental work, and is now shipped in large quantities to distant points both within and outside the State. The total output of Georgia in granite, in 1900, was valued at $380,434; the proportion sold in the rough, at $52,975; and the amount of dressed material sold, at $108,152. The remainder was used for paving blocks and curbing, or as riprap or bedding for roads.

At one time, the granite quarries in the vicinity of Richmond, Virginia, were among the most valuable in the Southern States, but of late years they have not been extensively worked. The granite output of this commonwealth in 1900 was valued at $211,080, and was used for the same general purposes as the granite product of Georgia already referred to.

There was, in the interval between 1897 and 1900, an enormous increase in the income from the sale of the granite produced in Maryland, North Carolina, South Carolina, Texas, and Virginia. The output of Maryland doubled in value; that of Virginia almost trebled, and that of North Carolina quadrupled, while the output of South Carolina in 1900 was sixteen times greater in value than the output of the same State in 1897; and that of Texas was twenty-two times greater.

All the Southern States, with the exception of North Carolina and Louisiana, produced, in the same interval, very large quantities of limestone, the deposits of which are much more extensively distributed in these States than beds

of granite. It is very generally used locally as a building stone, and also in paving streets and in making roads. A considerable amount is now converted into ballast for Southern railway tracks. It also forms the principal material for the manufacture of lime, while in Alabama, Tennessee, and Virginia it is consumed in enormous quantities as a flux in the iron furnaces.

Each Southern State, with the exception of West Virginia, whose output was slightly less in value, and North Carolina and Louisiana, has greatly increased its production of limestone in recent years, and the South, as a whole, has doubled its output.

The production of sandstone in the South is carried less far than that of limestone. Louisiana, which is not found at all in the list of Southern limestone producing States, quarries annually the largest and most valuable quantity of this variety of stone. In 1899 its output was estimated to be worth about $226,503, but in 1900 only $118,192. On the other hand, the output of Arkansas was computed, in 1899, to be worth $73,616, and in 1900, $104,923. The amount of sandstone quarried in the Southern States as a whole fell off in 1900, as compared with 1899, 50 per cent, or over $300,000 in value.

One of the most valuable deposits of talc known to exist in the United States is found in North Carolina, and this stone is also quarried in Maryland, Virginia, and Georgia. In 1898, only 639 short tons of talc and soapstone were produced in the latter State; two years afterward, the output was equal to 6,477 tons, worth about $77,213; in the same interval, the output of North Carolina increased in quantity from 1,695 tons to 4,522, and in value from $27,320 to $75,308. The product of Virginia in 1898 was equal to 10,059 tons, and in 1900 to 9,806, a slight decline.

In 1899, North Carolina was, among all the States of the Union, the largest producer of mica, but in the following year its output was smaller than that of New Hampshire, which was estimated to be about 191,118 pounds. North

Carolina came next, with 107,255 pounds. In 1899 its volume of production did not exceed 85,707 pounds. The principal deposits of mica in the State are situated in the mountain counties. The development of this source of wealth is discouraged by the large importations from foreign countries. All the corundum mined in the United States in 1900 was obtained from Macon County, North Carolina. Garnet is also mined extensively in this State; the output for 1900 was 3,185 tons, valued at $123,475, as compared with an output of 2,765 tons for 1899, valued at $98,325. A number of precious stones have also come to light in recent years in North Carolina. The only three diamonds of unquestioned purity ever found in the soil of the United States were found in the South. The discovery of diamonds in Georgia has been frequently reported, but the stones are of doubtful quality.

Three of the Southern States are producers of natural gas, but West Virginia alone as yet has carried very far the development of this source of wealth. In 1895 its output of natural gas was thought to be worth about one hundred thousand dollars; a few years later (1900) the annual output was valued at nearly three million dollars ($2,959,032), which represented an advance in one year alone of $623,168. As compared with the output of 1889, about a decade earlier, the increase amounted to $2,947,032. The quantity produced in the State really exceeds $3,000,000 in value, as at least thirty per cent of it, of which no account is taken, is consumed on the ground in the working of the petroleum wells, in whose immediate vicinity the gas is always found. The gas wells are sunk to a depth varying from 300 to 2,700 feet, and have a capacity, during twenty-four hours, ranging from 10,000,000 to 20,000,000 cubic feet. They are scattered through eighteen counties.

The principal portion of the natural gas of West Virginia brought to the surface by means of artificial wells finds a market in Ohio and Pennsylvania, to which States it is carried by pipe lines. The value of this exported product,

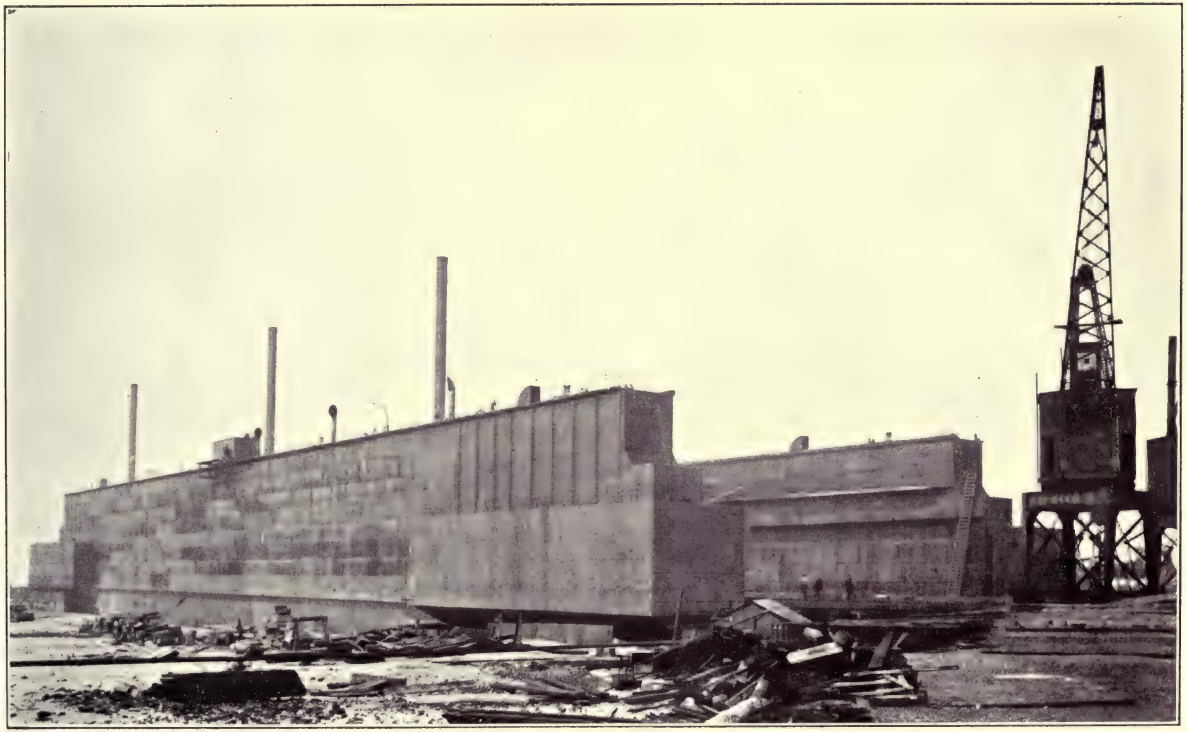
which is used for various manufacturing purposes, is rated at $1,682,971 per annum. In 1900, it is calculated that West Virginia supplied about forty-six thousand domestic fires with gas. It was also consumed in fourteen glass works and one hundred and sixty-eight other manufacturing establishments.

In 1888, neither Kentucky nor Texas was included in the list of the gas-producing States; it was only in the following year that their resources in this respect began to be utilized. In 1890 the product of Kentucky was valued at $30,000; in 1900, at $194,032. During the latter year, this State supplied 12,319 domestic fires and 115 manufacturing establishments of different kinds with natural gas.

The production of natural gas in Texas is comparatively small as yet; so far, the chief sources from which it is derived are two oil pools situated in the Corsicanna field. In 1900 the output of the State was valued at only $20,000. It supplies gas to 300 domestic fires and to about 20 manufacturing establishments.

It is computed that the three States of Texas, Kentucky, and West Virginia furnish annually, as a substitute for coal, wood, and other fuel, a quantity of gas that is equal in value to about $2,000,000.

LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA



Floating dock, the largest in the world, for Cavite Arsenal, Philippines, in course of construction by the Maryland Steel Company, at Sparrow Point, near Baltimore.

CHAPTER X

PRODUCTS OF HAND AND MACHINE

THE possession of extraordinary natural resources, such as we have seen the Southern States are so richly endowed with, is one of the greatest blessings that Providence can confer upon a people, but it is not in itself the indispensable basis of national wealth. What country in the same highly civilized condition is to-day poorer in the raw materials of manufacture than Great Britain? She is compelled to obtain the cotton utilized in her factories from across thousands of miles of sea, while the larger proportion of her wool similarly utilized is brought from an even greater distance. The major quantity of the meat and bread which her people daily eat are, in their original form, produced on the other side of a great ocean. Forty years ago, a war sweeping over the Southern States, closed all the ports on the Atlantic coast, and this blockade, by shutting in the cotton of the Southern fields, carried as much ruin into the factories of Lancashire as if these States had still been colonies of Great Britain and the hostilities had been going on between Great Britain and the United States. If a blight were to fall suddenly upon every flock of sheep and on every cotton field on the globe outside of the British Islands, what would become of the prosperity of the British cotton and woollen mills? And if for a fortnight those islands could be successfully walled in by a hostile fleet, starvation would stare millions of their population in the face.

Herein consists the greatness of Great Britain that, with a land too small and too far to the north to be endowed by nature with any great variety of agricultural or mineral wealth, she has yet, in proportion to the number of her inhabitants, become the leading manufacturing nation of the world. She is, to-day, also the richest. She draws, with all the power of an unlimited credit, on the entire resources of the globe as if her political dominion as well as her commercial knew no physical bounds. She works up the raw material of all the countries of the globe into a myriad useful or beautiful forms, and she distributes them among all peoples, whether savage, barbarous, or civilized.

But there is nearer home a more striking exemplar even than Great Britain. What would Massachusetts be to-day if its people had relied upon its scanty agricultural products as their only means of accumulating fortunes? Most of its cities would never have sprung into existence; its barren hills would long ago have been almost deserted. Instead of never rising above this condition, the State turned to manufactures to make good the natural deficiencies which had fallen to its lot; without agricultural wealth, without native raw material, it is to-day per capita and per acre the richest commonwealth in the Union. In 1890, its assessed property was equal to that of the two Carolinas, Georgia, Alabama, Mississippi, Louisiana, Arkansas, and Texas all combined, though these States possessed resources in agriculture and mineral deposits hardly equalled elsewhere on the globe. It is from these very States that Massachusetts has drawn the cotton, hides, coal, and iron, which, when fashioned into a thousand new forms, has brought it such enormous wealth; without cotton, without hides, without coal, without iron obtainable from its own soil, it buys these raw materials from other States and converts them annually into a great variety of goods, valued at nearly $1,000,000,000.

The most fortunate people are those who occupy a country capable of producing the raw materials of manufacture,

and who also possess the skill and equipment for turning these raw materials into the articles sought by commerce. It is the people who work up into innumerable forms the products of their own fields, forests, and mines. Manufacture doubles and trebles and quadruples the value of raw materials. Five hundred million pounds of cotton is the average crop of South Carolina from year to year; sold at seven cents a pound to the New England manufacturer, it would bring into the State only $35,000,000; converted in the State into five hundred million pounds of white cloth and disposed of at twenty cents a pound, it would bring in $100,000,000. Nor would this be the only benefit derived from the mauufacture of raw materials on the ground where produced; indirectly, a hundred different interests would be fostered by the distribution of the larger income that would follow. Every factory is a market, and the nucleus of a city; storekeepers, mechanics, laborers, farmers, professional men—all find in its vicinity a new field of employment.

A State may show in the long run a great lack of foresight in parting too freely with its raw materials. The ultimate wisdom of such sales is dependent on the character of the raw materials themselves. Cotton, for instance, is an annual product of the soil; it reproduces itself from year to year. The South, by her failure to convert her entire annual crop of this staple into coarse and fine cloths, may miss an opportunity of adding enormously to her wealth, but in selling this crop she is not trenching on a resource that has a limit; she can go on producing cotton for an indefinite series of years, because her soil and climate, which are particularly well suited to the plant, are practically eternal. But this is not the case with her beds of coal and iron ore, her dikes of clay, her wells of oil and natural gas. Every draft upon these raw materials diminishes their quantity, without prospect of renewal. A lavish sale of them to others, instead of using them, in the greater part at least, on the ground in manufacture, is more reprehensible from an economic point of view than a lavish sale of such raw

materials as cotton, hides, and timber, which are, by proper culture, capable of annual reproduction. A citizen of Texas, for instance, has more reason to regard with equanimity the dispersion of the annual cotton crop of that State than a citizen of West Virginia the dispersion, year after year, to the furthest parts of the earth, of the product of his State's coal mines. It is true that the cotton as well as the coal can be used in building up manufactures, but the coal, unlike the cotton, is incapable of renewal when it is once exhausted.

Fortunately for the South, her principal raw materials are of such a nature that they are renewable from year to year. Her cotton, rice, tobacco, sugar cane, timber, fisheries, and herds—these, with the most moderate wisdom in their use, must continue practically without any limitation. The enormous development of all the mineral wealth described in the last chapter is the first step toward turning this wealth to the fullest account in local manufacture, a step certain to add, in an extraordinary degree, to the prosperity of the Southern States. Though that development has not been in progress more than twenty-five years, we already observe a growing determination among the Southern people to make the most in their own factories, as far as their capital permits, not only of the South's exhaustible resources, such as coal and iron ore, but also of those which are inexhaustible, such as cotton and timber. This fact will be seen clearly when we come to study the growth of Southern manufactures in detail.

There was nothing more remarkable in the history of the Southern people before the abolition of slavery than their comparative indifference to manufactures. When we seek the explanation of this attitude, we find that it had its origin in causes which are perfectly intelligible. Down to the abolition of slavery, the economic system prevailing in the Southern States was practically the same as it had been from the beginning of the colonial age; the same general influences that led the people of colonial Virginia, the Carolinas, and

Georgia to buy their principal manufactured articles in England, the mother country, led the people of the entire South, before the War, to buy the same articles in Great Britain or the Northern States. It is true that the British government in colonial times actively discouraged all attempts on the part of its American subjects to manufacture their own artificial supplies, but, independently of the restraining influence of this opposition, there was no real disposition among the tobacco and rice planters of the Southern colonies to undertake such manufactures. They were perfectly content to go on cultivating their staple crops, for which there was an uninterrupted demand, and leave it to the mother country to furnish them with such manufactured articles as they needed. In spite of the continued efforts of energetic individuals, many of which were successful, to build up manufacturing enterprises in the South in the interval between the close of the War of the Revolution and the beginning of the War of Secession, the Southern people, as a whole, remained a purely agricultural people, who found no difficulty in selling their tobacco, cotton, and rice at the North or in England, and obtaining there the manufactured articles they required. They considered it, in the long run, wiser for them to follow this policy than to establish a rival system of manufactures of their own—that as long as the world was dependent on them for such necessaries as cotton, rice, and tobacco, all their attention rightly should be directed to the production of such crops, without any diversion of their profits to the establishment of manufactures, which already existed for their benefit in other parts of the Union. The world, they argued, could no more do without their staples than they themselves could do without the manufactured articles which they bought from the purchasers of these staples. They felt absolutely sure also that the demand for their cotton, rice, and tobacco would increase as time passed,—that their market would be as certain in the future as it was in the present,—and that the level of prices would never be greatly lowered and would probably be

greatly raised. The controlling and guiding class of the South—the planters—entertained this belief with practically no dissenting voice; naturally, therefore, the bulk of all the accumulations of the Southern people from year to year was converted into one form only—land and negroes. Planting was the one occupation which substantially the entire community followed, the only pursuit which the overwhelming mass thoroughly understood, and consequently the only one in which they were willing to invest their earnings. Even when a Southerner in the times of slavery gained a fortune by speculation, or in trade, his first inclination was to buy a rural estate and establish himself as a country gentleman.

The old system in at least two other ways had a direct effect in balking manufactures. First, all the influences flowing from the great landed estates, which covered practically the entire face of the country, tended to contract the coöperative spirit. In spite of the hospitable and social instincts of the Southern planter, he led a life which, from the nature of his situation, was independent of the life of his fellow planters. This was especially the case with this life from an economic point of view. All the great pecuniary successes won were, with comparatively few exceptions, accomplished by individual energy and enterprise, and not by a combination of persons. Now the growth of manufactures in a large way is primarily the work of the coöperative spirit, and in its turn, this coöperative spirit is promoted by manufactures. The two act upon each other mutually. Never in the history of the world has the coöperative spirit been so alert as it is to-day; never before have manufactures been carried to such a pitch of perfection, and never before, it may be added, has mere individuality among the body of mankind counted for so little. The whole tendency of the old Southern system was to cultivate individuality, and to encourage independence of action, and it followed that the overwhelming majority of the Southern people preferred to devote themselves to a pursuit that each one could carry on without any of those

combinations with other men which would have been necessary had their attention and capital been directed equally or chiefly to manufactures.

Secondly, all the influences of the Southern landed estates tended to retard the growth of cities. Had these influences been promotive of such growth, the coöperative spirit would soon have exhibited itself to an extraordinary degree in the establishment of innumerable manufactures. When men come to live together in large towns, this spirit is inevitably fostered among them. But in the South under the old system, there were few great centres in the modern sense of the word; such towns as existed derived their support from the fact that they were distributing points for planters' supplies, or markets for the sale of plantation products. As there were only a few cities where all the higher branches of the handicrafts were carried on, it followed that there were few schools in which, from generation to generation, rank after rank of skilled artisans and foremen might have been trained. There was but one general school for tradesmen in the South—the plantation—but the mechanical needs of the plantation were simple, and were met by the slave without difficulty.

What was the result of these peculiar economic conditions prevailing in the South before the abolition of slavery? The astonishing spectacle was presented to the world of a great section of country, with every resource that nature could give for the upbuilding of a vast circle of manufactures—raw materials unlimited, coal and water-power practically inexhaustible—yet satisfied as a community to pass all this wonderful endowment by and rely almost exclusively on agriculture for the accumulation of wealth. If we enumerate all the manufactures that existed in the Southern States in 1860, they seem to be unworthy of consideration in comparison with what might have been had the means and energy of these States been chiefly turned to making use of the almost boundless resources of the country in carrying on great manufacturing industries.

Never perhaps in the history of the Southern people was their agricultural prosperity so great as in the decade preceding the War—never, perhaps, had their disinclination as a mass to change from a purely agricultural system to a system in which manufactures should preponderate been more decided—and yet they were upon the very threshold of a revolution that was to make it impossible for the Southern States to remain only a great agricultural community. With all the destruction of property, the outpouring of precious blood, the ruin of a noble social class, the anguish untold, and the tears unnumbered, the War brought one economic advantage at least which in time will counterbalance all its evils: it put an end forever to the popular Southern belief that the Southern people should give themselves up wholly to the agricultural development of their States; and that the task of furnishing the manufactured articles they needed should be left to the people of other communities. The influence of the new system is to inspire the people of the South with the determination, as far as possible, to supply not only themselves with manufactured articles, but also the world at large.

How has this new economic spirit been aroused? We have already pointed out at length the reasons for the reversal of the former tendency toward the engrossment of the soil. All the tendencies are now toward its subdivision, a proof that it is no longer profitable to hold land in the South in large bodies; it follows that there is no longer a disposition among those Southerners who have accumulated money on a considerable scale since the War to invest it in plantations. Men who have made fortunes in trade or manufactures invest their means in the cities, generally in new industrial enterprises, which are thus constantly increasing in number. Instead of the country being recruited from the town, as formerly, the town is recruited from the country. Life in the rural districts no longer offers either economic advantages or social attractions. The higher planting class that, under the old system, gave so much social distinction

to rural life has, so far as it has survived at all, been concentrated in the cities. The families that, in the times of slavery, would have been found only in the country, are now found, with few exceptions, in town. The transplantation has been practically universal. The talent, the energy, the ambition that formerly sought expression in the management of great estates and the control of hosts of slaves now seek a field of action in trade, in manufacturing enterprises, or in general enterprises of development. This was for the ruling class of the South the natural outcome of the great economic revolution following the War. Cultivation of the ground in a large way became unprofitable; the new system of labor made the old manner of life impossible; and the abolition of slavery deprived it of all its peculiar charm—in short, all influences combined to break up the rural gentry and force them to turn to other occupations than those of agriculture for a livelihood, amid surroundings more agreeable to their social tastes. The industrial life of towns and cities, as furnishing larger opportunities for pecuniary profit and affording a wider room for employment, naturally drew hundreds and thousands into its various departments of activity. One of the most notable aspects of the great manufacturing development in progress throughout the South at the present time is the fact that an enormous proportion of the persons who fill the responsible positions in these enterprises are men who were born and bred in the former slave States—men who are the sons of former slaveholders and who passed their early life on farms and plantations—men who were in no way equipped by the environment of their youth or by their earliest training for the successful management of a great variety of mercantile establishments—and yet who have, by the force of circumstances and the native adaptability of their race, come to be in full touch with the all-absorbing, all-embracing commercial spirit of the age—who, with practically no previous experience of manufacturing, and with comparatively small capital, are rapidly building up manufacturing industries,

which, in some instances, are already rivalling those of the North—men who, with a clear recognition of the extraordinary advantages they enjoy in the varied resources of the Southern States, are pressing on with the fullest confidence that the manufactures of these States will in time become the most valuable in the Union, and among the most valuable in the world.

The growth of Southern manufactures since 1880, the year when the revival of the Southern States really began, seems to justify this confidence. In the interval between 1890 and 1900, the increase under every head of outlay, with the exception of wages, was larger than during the interval between 1880 and 1890. In the course of twenty years, the number of wage earners in the various departments of Southern manufactures has grown from 298,321 to 763,277; the capital engaged, from $251,692,038 to $1,111,688,852; the value of the products, from $445,572,461 to $1,419,001,873.

In the course of the two decades previous to 1900, there was, with the exception of Kentucky alone, not a single State in the entire South in which the capital embarked in manufactures was not trebled; in the case of many of the States it was quadrupled; and of some, sextupled; while in that of others, the amount of capital expanded until it was ten times greater than it had been in 1880. In the volume of its capital, and the gross value of its manufactured output, Maryland is the leading Southern commonwealth, but this condition is chiefly due to the situation within its borders of the largest and most prosperous of the Southern cities—the one that suffered least from the devastation of the War, because it drew its main support from the West. Louisiana and Kentucky, which possess the two most populous cities after Baltimore, follow next,—one, Kentucky, in the value of its manufactured product; the other, Louisiana, in the volume of its manufacturing capital. Virginia is superior to Louisiana in the value of its manufactured product, but inferior in the amount of its capital. Georgia and Texas

have almost the same amount of capital embarked in manufactures, but the value of the output of Texas in manufactured articles exceeds that of Georgia by over twelve million dollars. The manufacturing capital of Tennessee falls short of that of Georgia by over eighteen million dollars, while its manufactured output is nearly a million dollars more valuable. The manufacturing capital of Tennessee and Alabama is substantially the same, and yet the value of the manufactured products of Tennessee runs ahead of those of Alabama by nearly twenty-five million dollars. These remarkable differences are explained by the character of each State's special branches of manufacture.

One of the most encouraging aspects of the enormous growth in the manufacturing interests of the South is the fact that this growth has not been at the expense of agriculture. In other parts of the United States, especially in the commonwealths of New England, the emigration from the rural districts to the nearest cities has drawn into its current all sections of the community; the farm laborers and the small landowners have been more eager than the wealthier members of rural society to abandon the country for the greater social advantages and the larger pecuniary prospects of the towns. In the Southern States, on the other hand, the principal migration to the towns so far has been on the part of the descendants of the former great planting class; the agricultural laborers, both white and black, and the small landowners of both races, have, as a mass, remained on the farms. There is still a superabundance rather than a scarcity of tillers of the soil. The cities have grown, but have not grown at the expense of the rural districts. As we shall see later on, when we come to treat of the operatives in the new cotton mills of the South, the workingmen of this kind found in the new Southern manufacturing centres are drawn, as a rule, from a section of the population of the country that has never thriven in agriculture, or in the mechanical trades; and whose withdrawal to other pursuits has not seriously diminished, if it has

diminished at all, the agricultural output of the communities deserted. It is a section, indeed, which, as a whole, has never applied itself regularly to any profitable occupation—a section that has led a life in which there was no continuous and no very productive labor.

But perhaps the most encouraging feature of the great development in Southern manufacture now going on is the fact that the South is depending for her supplies entirely on her own native raw materials; indeed, she is not compelled to buy a dollar's worth of such materials from the other States of the Union, or from alien countries, to work up in her own factories. The basis of her growing wealth derived from this department of industry is the coal and iron ore mined in her own hills, the lumber cut in her own forests, the cotton, cottonseed, and tobacco produced in her own fields. The money which her manufacturers pay out in buying the raw materials goes, not into the hands of the citizens of other commonwealths or foreign nations, but into the hands of her own people. The South is not at the disadvantage of New England, which is forced to draw on the Southern States for her cotton and on Pennsylvania for her coal and iron. The cotton, the coal, and iron lie at the doors of the Southern factories. It is true, as we shall see, that discrimination in railway rates in a measure diminishes the superiority of the South's position in the manufacture of cotton as compared with the position of the New England States; and that at present she finds an obstacle to overcome in her distance from the great markets where her newly made cloth is sold. But these drawbacks are likely to decline in importance in the future.

Besides the advantage of producing her own raw materials, the South possesses several others which have had a powerful influence in increasing the prosperity of her manufacturing interests. It is the established policy of its different States to do away as far as possible with all restrictions on labor. There has been until very recently no attempt on the part of their legislatures to interfere with the employment

of women and children in the factories, or to curtail the hours of work there. In some of the States, the taxes imposed on manufacturing establishments are very light; and in others, all new establishments are entirely exempted for a definite term of years. Water power is abundant in nearly every Southern district, and everywhere fuel is very cheap. In consequence of a mild climate, the factory buildings are not required to be of an elaborate and costly construction. The former impression that the heat of the Southern summers, by enervating the operatives, would seriously diminish the manufacturing capacity of the South has, by experience, been shown to be unfounded. The statement that the same amount of work to the individual by the hour at certain seasons that is done in Northern factories cannot be done in Southern, is fully met by the longer course of a day's labor in the Southern mills.

CHAPTER XI

PRODUCTS OF HAND AND MACHINE—(Continued)

BEFORE entering into a detailed account of Southern manufactures proper, it will be necessary to describe at some length the condition of the mechanical trades.

Brief references have already been made to the general condition of the simpler handicrafts in the times of slavery. Except in the towns, which were comparatively few in number and small in size, the ordinary mechanical needs of each community, of which the plantation formed the unit, were met by the skill of trained slaves. Even in the towns, where white mechanics, as a rule, were alone to be found, there were many slaves among the artisans who had been hired out by their owners in the country. In a certain sense every large estate was a trade school, in which, in the course of years, many negroes were instructed in all the mysteries of the minor handicrafts; there were blacksmiths, carpenters, wheelwrights, saddlers, shoemakers, spinners, weavers, stonemasons, and the like. The most intelligent young negroes were picked out to serve an apprenticeship, and often a trade descended from father to son. Many of these slaves acquired an extraordinary degree of skill, and in their own branches of mechanical labor were as accomplished as the white men engaged in the same pursuits.

To-day there are not as many negro artisans in the South in proportion to the black population as there were before the abolition of slavery. One may search many widespread

rural districts in the Southern States and not find a single negro mechanic where, during the existence of the old plantation system, there were many hundreds. For a period of twenty years after the War, there were in these very districts numerous artisans of that race, such as carpenters, wheelwrights, blacksmiths, masons, and shoemakers, because it was not until the end of this period that the negroes trained to handicrafts when they were slaves began to die. After the War, a large proportion of the men thus educated continued, by the mere force of habit, to work at their various trades; but it was comparatively rare that the sons of these men followed the callings of their fathers. The same influence has been felt here as in the ordinary tasks of the farm—continuous labor is repugnant to the negro of the new generation. There is no occupation open to him which requires more regularity of life than one of the mechanical pursuits, if custom is either to be acquired or retained. He must from day to day be present in his shop without a break during certain hours in order to accommodate his usual or casual patrons. Repeated intervals of absence, short or long, spent in idleness, or given up to amusements more distracting than idleness, would be destructive of every prospect of a remunerative trade. The confinement which success in a handicraft demands is peculiarly distasteful to the average young negro, and the problem of a pursuit in life is solved by him by following the occupation that allows him the largest degree of liberty in his personal movements.

With few exceptions in proportion to the mass, the negro mechanics of the present day are to be found in the villages, towns, and cities of the South—not in the country districts. As the conditions of earning a livelihood in other occupations are harder to meet in the large centres of population than in the rural neighborhoods, negro handicraftsmen seated in the former are not so much tempted to abandon altogether, or to pursue irregularly, the trades which they have adopted. The life followed by each one during his

hours of work is less lonely than it would be if he were a carpenter, blacksmith, shoemaker, or the like, at a rural stand; this fact alone has a strong influence in holding the negroes with comparative steadfastness to their crafts.

No one saw more clearly the necessity of instilling into the mind of the negro of the new generation a taste for those trades in which the negro of the old excelled, than the late General Samuel C. Armstrong, the first head of the Agricultural and Mechanical College at Hampton, Va., and one of the very wisest and most farsighted men who has striven to improve the general condition of the race. He built up that great institution upon the principle that manual training was the proper foundation stone of the free negro's education. At Hampton, from the time a child enters the kindergarten until he graduates from the literary department, his attention is never entirely diverted for any great length of time from some branch of manual labor. In the beginning, the little negro is engaged with the simplest tasks in carpentry and the like. As his education in books goes on, he is required to perform more difficult tasks in working wood, iron, and clay. Every study in the academic department bears some relation to either agriculture, or the trades; the pupils in this department begin with woodwork; they are next occupied with bent iron work; and finally with the more complicated branches of iron and tin work. There are altogether sixteen mechanical shops at Hampton; in these shops, the whole body of students who are earning the means to pay their tuition fees in other departments of the college spend ten hours a day.

One of the most important features of the institution at Hampton is a great trade school, in which the handicrafts are taught, not for their moral influence on the characters of the students, as in the college at large, but for the direct purpose of training the students in some mechanical trade as a pursuit in life. In this school, at an outlay of $50,000 per annum, instruction is given in mechanical drawing; in

the arts of the blacksmith and the wheelwright; in carpentry, painting, bricklaying, masonry, and glass-setting; and also in shoemaking, saddlery, and harnessmaking. The course is spread over a period of three years. In the first year, the lessons are confined to the simplest lines of handwork, while in the second the students pass into the different shops; these, among other contrivances, contain a thoroughly equipped saw mill, where as much as thirty thousand feet of finished lumber is produced in a day, part of which is sold, and the remainder worked up into shapes fitted for the interior walls of houses. During this second year, the students are also instructed in the proper methods of estimating the cost of a projected building as the basis of entering into a contract for its construction. In their third year, they are occupied in learning the theoretical side of handicrafts of all kinds. Success in obtaining a diploma in this branch school means that the recipient has passed a satisfactory examination in both the theory and the practice of a trade. Post graduate courses are established for those pupils who intend to offer themselves as teachers in institutions designed for the mechanical instruction of their race.

The Hampton Agricultural and Mechanical College has sent out over six thousand young negroes who have enjoyed the benefit, for a shorter or a longer time, of its instruction in the mechanical trades. While 90 per cent of its full graduates, who now exceed one thousand in number, become teachers in the public schools, the larger proportion of its students, considered as a whole, enter into some department of labor where a manual training is of direct benefit. It is true that a few thousand blacks who have had the advantage of such training at Hampton are of but little account numerically when considered with the millions of their race scattered over the Southern States, still the principle which the institution seeks to enforce has borne good fruit in the wise example that has been set. In every State of the South there is now a school or college for negroes, carefully founded upon the principle so earnestly advocated by

General Armstrong and so successfully carried out by him, and by his able and devoted successor, Dr. Frissell.

Nowhere is the principle that manual training is the true basis for the negro's education, whether he intends to become a mechanic or not, illustrated with more practical wisdom than in the agricultural and industrial college at Tuskegee, Alabama, which was established by Booker T. Washington, the most distinguished disciple of General Armstrong. The work of the Tuskegee School is ordered upon precisely the same general lines as that of its prototype in Virginia. And this is also true of the Industrial School for Negroes at Orangeburg, S. C.; of the schools for the same race at Greensboro, N. C., and Frankfort, Ky.; indeed, of every institution of a general character for the blacks to be found in the Southern States. In none of these minor institutions is education in the mechanical trades carried so far as at Hampton and Tuskegee, but the inevitable tendency of all such schools as time goes on and the mechanical efficiency of the negroes as a race declines, will be to push the manual training of their students to a point even further than that which the schools at Hampton and Tuskegee have reached. Even at the present time lack of means alone prevents every industrial college for the blacks from rivalling and even exceeding the extent to which the institutions identified with Armstrong and Washington have carried manual education.

So powerful is now thought to be the purely moral influence on the negro character of manual training, even in its simplest forms, that it is proposed in many parts of the South to require such training to be given in all the common schools established for the race. It has already been introduced into the schools of some of the cities possessing sufficient income to meet the increased expense which a double system of manual and mental instruction makes necessary; and it would by this time have been introduced into every urban school but for this heavy charge upon taxable values. In the future, as wealth accumulates in the South, it is quite probable that some form of manual training

will enter into the course of all the public schools for the Southern negroes—of the common school as well as of the high school, in town and country alike.

As we have already stated, the great mass of the black mechanics found at the present time in the Southern States, follow their trades in the villages, towns, and cities. Few in proportion to the size of the negro population have their shops in the country, even at the small neighborhood centres formed by the store and post office. In the larger centres—the villages and towns—where they live, they come directly in competition with white mechanics, but they are able to hold their own by their willingness to work at a lower rate of compensation than their white rivals. This they have no difficulty in doing in consequence of the humbler and cheaper manner of living which contents them. A black carpenter will be satisfied to begin on wages of 75 cents a day, and if he becomes more skilful, will finally receive $1.25; he is now ready to do work at that price which a white carpenter would refuse to do for less than $1.50 a day. In many cases, a contractor will engage a small number of white mechanics at the higher rate of wages, and a large number of black, of equal skill and experience, at the lower rate, to labor side by side in erecting a building. Negroes are employed everywhere in the Southern States as bricklayers. This trade is largely in their hands in Georgia, where they receive from many of the great contractors the same compensation as white bricklayers. In South Carolina, on the other hand, negro bricklayers can be obtained for one dollar less a day than capable white men of the same craft.

The willingness of every class of black mechanics to work for smaller remuneration than the white has had the effect of holding down the wages of the white mechanics. In nearly all the trades, the rates of compensation for the whites is governed more or less by the rates at which the blacks can be hired. As the labor federations of the North have been extended to the Southern States, a large

number of the white mechanics of these States are prevented by their membership in such organizations from consenting to work at reduced wages; this has led to an earnest attempt on their part to draw the negroes into the same unions in order to maintain the general rates of compensation established by these bodies. But this has been attended with only a small success. Wherever unions have been formed, it has, owing to the existence of race prejudice, been found necessary to have a separate local organization. There are no federations in the South composed partly of negroes, and partly of white men. The black mechanics, as a mass, are shrewd enough to perceive that their welfare is best subserved by remaining outside of the unions; for reduced to a choice between white and black mechanics at the same rate of wages, the white employer is quite certain to favor the white because they are more apt to be skilful and reliable; and also because they belong to his own race. There is no scarcity now of white mechanics, and should there ever be, in consequence of the development going on in the South, the deficiency would soon be made good by the coming in of mechanics from the Northern States. The black artisan keeps his ground by underbidding the white, and he can continue to do this only by maintaining his independent position. This disposition on his part is certain to save the Southern States in the future from the evil consequences of many general labor strikes; such strikes are likely to be only brief in duration, chiefly as the result of the Southern employer's ability to hold the great mass of negro mechanics *in terrorem* over the heads of the white. Should all the negro men in a Southern city be persuaded to join a labor union, and afterward be induced to follow the members of the white branches out in a strike, thrice their number could be obtained from the surrounding country in a few days; and in a comparatively short time, so quick and ready is the imitative faculty of the blacks, these recruits could be trained to take the places of those of their race who had abandoned their employment.

There can be little question that the presence of the negro mechanic, ready to work for wages which would not support a white man in the way he thinks called for by the most ordinary degree of self-respect, has a tendency to lower the general standing of the entire body of white mechanics in the Southern States. That class can never occupy so good a position as their fellow-craftsmen in the North simply because they will always be deprived, to a very great extent, by the successful competition of the negro, of the advantages that flow from the unions. Employers may be benefited to some degree by their ability to control this labor, but, on the other hand, it is probable that the character of the work they get will be inferior to what it would be if it were done by an organized body of white journeymen.

The Southern institutions in which white students receive a manual training are even more numerous than those in which the negroes are similarly instructed. But in most of these schools for whites, just as in most of those which blacks attend, the manual education is given, not as a future means of livelihood for the pupil, but simply for the moral effect of such training on his character. The student's hand and eye are drilled for the reflex influence on the mind and disposition. There were, in 1899, 3,320 pupils enrolled in the industrial institutions of the South Atlantic and South Central States, which include Missouri. In the interval between 1890 and 1900, the schools giving a normal and industrial training grew in number from three to ten; and there is now hardly a State in the South in which there is not a school of this kind.

The principal institutions for the manual instruction of the whites are the Southern Industrial College in Alabama; the Fort Valley High and Industrial School in Georgia; the Louisville Manual Training High School in Kentucky; the Home Institute at New Orleans; the Polytechnic Institute, St. Mary's Industrial School, the McDonough and the Tome Institute in Maryland; the Asheville Farm

School in North Carolina; the Schofield Normal and Industrial School in South Carolina; the Miller Manual Labor School in Virginia; and the Southern Industrial School in Tennessee.

These manual labor and industrial colleges are organized on the most modern footing, with the most highly improved equipment of every kind, and with teachers thoroughly prepared to instruct in their special courses. Some of these institutions, like the McDonough School, the Tome Institute, and the Miller Manual Labor School, were founded by means of endowment funds running into several millions of dollars, the gift of wealthy philanthropists who had accumulated their fortunes in the Southern States. In some, the manual instruction is restricted to carpentry, wood turning and carving, cabinet and pattern making; in others, the training in these branches of woodworking is combined with instruction in the different departments of labor in the machine shop.

In all the technical schools of the South, careful instruction in the ordinary handicrafts is also given. Thus at Clemson College, in South Carolina, one of the most excellent of all the Southern institutions of this kind, a large building, with floor space equal to 30,000 square feet, has been erected for the accommodation of very extensive machine, foundry, forge and carpenter shops, in which a thorough practical training is given in all branches of machine, forge, foundry, and woodwork. Other technical schools might be named in which the courses in manual education are equally varied and far-reaching.

CHAPTER XII

PRODUCTS OF HAND AND MACHINE—(Continued)

REVERTING to the subject of manufactures in the general sense, it is found that it is in the manufacture of cotton that the Southern States have made the most remarkable progress in recent years. It is not strange that this should be so—the production of raw cotton has been the employment of the larger proportion of the Southern people for a hundred years or more; the crop is grown at their very doors in quantities unsurpassed elsewhere on the globe; and of all the Southern staples, it is the one that has the most exuberant yield. How natural, in the light of all this, that when the South's attention was directed to manufactures by the economic influences of the new system, the making of cotton goods should have appeared to her people to be the one which united in itself the most numerous chances of success. Cheap fuel, almost limitless water power, abundant raw material at the factory door, extensive railway facilities, and an inexhaustible supply of white labor—all combined to encourage enterprising men in the Southern States to turn to cotton manufacture. If the people of New England could acquire such great fortunes in this manufacture so far away from the cotton fields, why should not the Southern people, with all the advantages possessed by them, acquire by the same means an equal degree of wealth? Here and there in the South, even in the times of slavery, cotton factories had been built, and had proved

to be profitable investments in spite of Northern competition. Their history justified and gave spirit to the new movement. If a few cotton mills in each State had succeeded under the former system, why should not many succeed under the new?

There was another influence which greatly stimulated cotton manufacture in the South and has had much to do with bringing it to its present large proportions. We refer to the steadily declining value of the raw material since 1866. During that year the price of a pound of cotton was about 31½ cents; had that price been maintained, there would have been little inducement in the Southern States to invest in cotton mills; but the price in 1898 had dropped to 5¾ cents.

Since 1898 the price has fluctuated from year to year in a very marked way, but not enough to arrest the growth of cotton manufacture. The production of raw cotton since 1866 has steadily expanded, while the value of the product has as steadily shrunk. New England and old England, then as now, could consume only a certain quantity of the annual crop. About 45 per cent of the world's spindles were then the property of Old England, and about 13 per cent, of New England; but though the number belonging to each increased in the course of the years between 1866 and 1898, it was not in proportion to the growth in the size of the Southern cotton crop. The Southern people had but one means to prevent their surplus cotton from becoming a total loss; namely, to begin to spin and weave it into cloth themselves.

First, let us consider the expansion in Southern cotton manufacture, as shown by the increase in the number of mills. Looking at the South as a whole, we find that the number of cotton mills erected between 1880 and 1900 doubled the number that were in existence in the former year. In 1880 the Southern States possessed less than one-fourth of the cotton factories of the Union; in 1900 they possessed nearly one-half. The total number of such factories in operation in the South in 1900 was 416, while the

total number in operation in the United States was 969. The increase in the number of the Southern mills in the course of 1901 was estimated at 60.

The advance in cotton manufactures is shown equally clearly by the increase in the number of spindles in operation in the Southern States. Between 1890 and 1900 these more than trebled. Between 1880 and 1900 the number had more than sextupled. In one year alone, 1901, 1,309,182 new spindles were added to the equipment of the Southern cotton mills, and at its close the Southern States possessed about one-fourth of those in operation in the entire country.

Equally remarkable has been the increase in the amount of capital invested in cotton manufacture in the South. In the interval between 1880 and 1900, the amount of capital invested in this form in the Southern States nearly sextupled, the amounts respectively being $22,867,000 and $132,450,000, while it doubled in the course of the last ten years of this period. It is interesting to note that although the number of cotton mills in both Maryland and Virginia decreased in the course of the interval between 1880 and 1900, the amount of capital invested in cotton manufacture in these States, in the same interval, greatly increased. In Maryland it nearly doubled, and in Virginia nearly quadrupled. In both States the number of spindles at work was swelled in the same interval, although the number in Maryland fell off in the course of the ten years between 1890 and 1900.

Even more remarkable than the increase in the number of mills and spindles, and the amount of capital employed, has been the increase in the consumption of cotton in actual manufacture. The rate of growth in this respect in the intervals between 1880 and 1890, and 1890 and 1900, is shown by the number of bales consumed, which in 1880, 1890, and 1900, were 240,284, 583,844, and 1,563,302, respectively. Including Maryland,—in which State, as we have seen, there occurred between 1890 and 1900 a falling off in the number of spindles,—there has been an

extraordinary increase in the number of bales consumed. Between 1880 and 1890, it will be seen, this number more than doubled; between 1880 and 1900 it more than sextupled. The most remarkable development, whether regarded from the point of view of number of mills, spindles, bales of cotton consumed, or amount of capital employed, has taken place in the two Carolinas; in 1880, these two States possessed only 63 mills, with an equipment of 174,719 spindles; in 1900, they possessed 257 mills, with an equipment of 2,564,781 spindles. In 1880, the amount of capital invested in cotton manufacture in the two States did not exceed $5,632,000; in 1900, the capital thus invested had grown to $72,271,000. The number of bales consumed had increased from 61,266 in 1880 to 889,769 in 1900. The advance was more remarkable in South Carolina than in North Carolina. The 80 cotton mills which South Carolina possessed in 1900 contained 300,000 spindles more than the 107 mills which North Carolina possessed in the same year; $6,000,000 more were invested in the 80 mills than in the 177; and they consumed in manufacture over 80,000 more bales of cotton than the latter mills. South Carolina is the leading State of the South in cotton manufacture. It is one of the most singular facts in the more recent history of the United States, that the commonwealth which was so eager to perpetuate the old plantation system that it was the first to precipitate secession is the one which has derived the most signal benefit from the change in that economic status considered by its citizens before the War to be absolutely essential to its prosperity, if not to its very existence as a State.

The extraordinary growth in Southern cotton manufacture is shown even more strikingly by a comparison, both in number of spindles and bales consumed, with the growth of the same industry in the Northern States. Let us first consider the number of spindles.

Between 1893 and 1900, the number of Northern spindles, which in the latter year were 14,050,000, increased

only 500,000, while those of the South increased nearly two million and a half (2,249,452), the total numbering 4,540,516.

Even more remarkable is the relative increase in the number of bales consumed in the mills of the two sections. In the Southern mills, the consumption increased from 179,000 bales in 1880 to 1,599,947 in 1900, a net gain of 1,420,947 bales; in the Northern mills, on the other hand, the consumption increased from 1,624,805 bales in 1880 to 2,192,671 in 1900, a net gain of only 567,866 bales, or nearly two-thirds less than the net gain in the Southern mills during the same period.

Reverting to the increase in the number of spindles, and extending the scope of our comparison to Great Britain and Continental Europe, we find that, of all the cotton mills of the world, the Southern have, since 1880, had the most remarkable record as to growth, the percentage of increase being for the Northern States 38⅓; for the Southern States, 633⅓; for Great Britain, 13½; and for Continental Europe, 57.

Quite as notable as the increase in the number of spindles, has been the increase in the number of bales, 600 pounds net, consumed by the cotton mills of the South, as compared with the increase in the number consumed by the cotton mills situated in other parts of the world, the percentage being for the Northern States, 26⅔; the Southern, 715; Great Britain, 14½; and Continental Europe, 93½.

The striking fact is to be noted that, in the interval between 1880 and 1900, the increase in the number of Southern cotton spindles was nearly 600 per cent greater than the increase in the number of those in the North; and about 563 per cent greater that the increase in the number of both British and Continental spindles. On the other hand, the increase in the consumption of cotton in the Southern mills exceeded the increase in the consumption of cotton in the Northern about 688 per cent; and the increase in the consumption in European, about 607 per cent.

Already, it is found that at least two Southern States—North and South Carolina—consume in their own cotton mills nearly one half of the entire cotton crop grown within their own borders; in 1898–1899, the percentage for South Carolina was 44.0, and for North Carolina, 48.2; since that year, the number of mills has greatly increased, and at the present time it is quite probable that much more than one-half of the cotton crop of the two Carolinas is annually used up in their own manufactures.

From a local point of view one of the most remarkable results of the increasing consumption of cotton in the Southern mills is the higher price for the raw material which it is beginning to assure the producer. Under the ordinary rule, the Southern mill purchases a bale of cotton at the rate quoted in New York, with the freight charge on a bale to that city subtracted; and this is done even if the cotton is bought from a planter whose fields are in full sight from the windows of the factory. As the degree of Southern consumption increases the demand for raw cotton by Northern and foreign buyers is becoming more eager, owing to the greater inroads upon the annual crop. In his turn the Southern manufacturer grows anxious, and in order to avoid the possibility of a short supply, especially in a year when prices give promise of rising steadily, he makes his purchases at a rate which practically disregards the deduction for freight charges. This has, for several years, been noted in all the principal cotton manufacturing districts of the two Carolinas; planters who live within a radius of a cotton factory have regularly been paid a higher price for their cotton crops than planters residing in neighborhoods far removed from the milling centres have been able to obtain in the open market. It is now almost invariably observed that whenever a crop threatens to be short, the mill owners in those centres are ready to buy at a rate considerably higher than the quotations on the Exchanges of Liverpool, New York, and New Orleans, by which the price of cotton is set from one end of the world to the other. The

tendency to disregard these quotations to a very marked degree is almost certain to grow as the production of cotton goods in the Southern States increases in value; and the whole effect of this tendency will be favorable to the interests of the planters. If the present rate of expansion in Southern cotton manufacture is kept up for an indefinite number of years, it is quite conceivable that the price of raw cotton will be governed not by the markets of Liverpool, New York, and New Orleans, as at present, but by the markets of a hundred small towns scattered through the States of North Carolina, South Carolina, Georgia, and Alabama, the four commonwealths which are likely to show in the future the most remarkable growth in the manufacture of cotton goods.

Independently of its possession of all the cotton fields, there are two advantages for the promotion of its own cotton manufactures which the South enjoys to an extraordinary degree—an abundant water power, and an even more abundant supply of labor.

First, let us consider the water power. The Appalachian mountain chain extends from the upper tributaries of the Potomac southward as far as northern Alabama. Beginning at a point in Loudoun County, Virginia, and following first the Blue Ridge and then the prolongation of the Alleghany range until we reach its last spur in the vicinity of Huntsville, we find a great slope stretching first eastward and then southward to the Atlantic Ocean and the Gulf of Mexico. This entire slope, from its northern to its southern limit, is cut up by streams, some of the very first magnitude and all pouring their waters into the sea through mouths that succeed each other along the coast at regular intervals.

In this descent from the mountain plateau to the ocean there is in nearly all at least one great break in the uniformity of the downward flow; this is where the water passes from the upper geological formation to the level of the coastal plain, and there meets the influx of the tide. From this point on to the sea there is no perceptible fall,

but from this point back to the mountains there is, in the case of every stream of considerable size, a number of sharp descents capable of being turned to as useful an account as the falls at the edge of the coastal plain.

As yet not one tithe of this vast water power created by the descent of almost innumerable streams from the Appalachian Range has been utilized in the manufacture of cotton, but that it will be in time, as the industry expands, cannot for a moment be doubted. It will be interesting to enumerate the principal rivers, and gauge the power which they will supply when duly harnessed.

Let us consider the rivers of Virginia first, beginning with the Potomac. Starting at Georgetown, we find at a point only five miles above that city what is known as the Little Falls, where the water rushes downward about ten feet; it is estimated that these falls will furnish a maximum of 2,600 horse power and a minimum of 1,200. Nine miles higher up the stream, we reach the Great Falls, where the level of the water sinks from thirty-five to forty feet in a distance not exceeding one hundred and fifty yards. In the course of a mile and a half, the river falls from eighty to ninety feet in all. The minimum power obtainable here is hardly short of 9,700 horse power, while at the ordinary head of the stream, the maximum power probably equals 18,000. At Harper's Ferry, where the Potomac receives the Shenandoah, there is a descent of twenty-five feet in a distance of three miles; it is calculated that the fall of water at this point will afford as a minimum 2,500 horse power, and as a maximum 5,000. Further up the Potomac, a power hardly less great is obtainable from a fall in the river of twenty-two feet; while in the Shenandoah, at a point situated some distance above Harper's Ferry, there is a descent of eighty-four feet, which, it is estimated, will supply as a minimum about 2,700 horse power, and as a maximum about 5,200.

None of these calculations takes into consideration the increased power that would result from a rise in the level

LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA



Post Office at San Antonio, Texas.

of the stream; they are based entirely upon the average volume of water during an ordinary season.

Passing to the Rappahannock, we find in that river at Fredericksburg a descent of forty-eight feet in a distance of a mile and a half; it is computed that this would supply a force ranging from 1,000 to 1,400 horse power. In the Appomattox, at Petersburg, there is a fall of one hundred and ten feet in a length of six and one quarter miles; the force here varies from a minimum of 2,200 horse power to a maximum of 2,900. This estimate is based upon the average volume of water. At Richmond, there is in the course of three miles a descent of eighty-four feet. At many points along the James as it passes through the mountain and Piedmont regions there are found sharp descents which could be used in creating the power required in cotton factories. This river enjoys a special advantage in having a railroad hugging its edge from Clifton Forge to Richmond. The two streams lying south of the James—one, the Staunton, being situated entirely in Virginia, the other, the Dan, in Virginia and North Carolina—have numerous extensive falls along their courses. The Staunton proper as yet has not a single cotton mill on its banks, though the long descent of its waters at many points, especially at Brook Neal, in Campbell County, and near Boydton, in Mecklenburg, would furnish a very large amount of horse power. The falls in the Dan at Danville, like the falls at Richmond and at Petersburg, have been turned to account in the production of driving force for numerous cotton and other mills.

No State in the South, perhaps, surpasses North Carolina in the number and extent of its water powers. The principal ones are found in Roanoke, Yadkin, and Catawba Rivers. The three greatest centres of cotton manufacture in this State in the future will be at Weldon on the Roanoke, at the Narrows of the Yadkin, and on the Catawba at a point near the crossing of the Western North Carolina Railway.

In Roanoke River, there is between Gaston and Weldon, in a distance of nine miles, a descent of eighty-four feet; it is computed that the force which can be harnessed here ranges from a minimum of 12,000 horse power to a maximum of 20,000. A canal has been dug by the Roanoke Navigation and Water Power Company from a point below Gaston to a point below Weldon, a length altogether of nine miles, which has brought into use a fall of seventy-eight feet. The Roanoke Rapids Company has constructed a canal about a mile long, which has developed, by a fall of twenty-five feet, a power equal at its maximum to about 7,000 horse power. Several factories have already been built to take advantage of the driving force which the rapids in the river have created and the two companies have made available.

Even more remarkable than the rapids of Roanoke River above Weldon is the descent of the Yadkin through its celebrated narrows; this descent reaches a total of 200 feet, with an average fall to the mile of twenty feet. The Narrows have been purchased by the Whitney Reduction Company, which has already spent a large amount of money in making the power of the falls available for purposes of manufacture. The dam erected by the company is about 1,500 feet long, a great wall of solid granite that is fifty feet through at the base and forty feet in height. The canal to convey the flood from the river will have a width at the bottom of forty feet and at the top of ninety, and will be four and a half miles in length. At the end of the canal the water will be precipitated to a bed 120 feet below its level in the canal.

It is proposed not only to build cotton mills at this point, but also to transmit electric power to all factories that shall hereafter be or are already erected in a radius of eighty miles, and to such important towns as Salisbury, Concord, Charlotte, Lexington, High Point, and Statesville. A power house is to be put up at a cost of $200,000 and equipped with machinery at an expense of $600,000. In time it is

expected that about 46,000 horse power will be obtained at the Narrows, and that the total outlay for the improvements at this place will reach the enormous sum of $5,000,000.

There are several important shoals in the Yadkin south of the Narrows which could easily be brought into use for cotton and other factories. Numerous water powers are also found along the entire length of its principal tributaries.

There are ten shoals in the course of Catawba River which have a descent ranging from five to fifty feet. It is now proposed to concentrate, by means of electric wires, the power which these different shoals create, and make it available not only at the shoals themselves, but at points remote from them. Numerous cotton mills have already been erected along the banks of the Catawba. The tributaries of this river also furnish several valuable water powers.

The water powers on the Tar and Neuse are not very numerous. The falls in the Tar at Rocky Mount have been fully utilized and a very prosperous manufacturing town has already sprung up at that point.

In Cape Fear River there is a descent of twenty feet at Blackburn's Falls, and twenty-seven feet at Smiley's. These powers as yet remain undeveloped. The numerous falls in Haw and Deep Rivers—tributaries of the Cape Fear—have already been made use of to a large extent; many cotton factories have been built on the banks of these streams.

In proportion to its area, South Carolina is as highly endowed as North Carolina with valuable water powers. There are several points along the course of Catawba River in this State where the descent is so sharp that an extraordinary degree of motive power is made available; thus, in a distance of five miles in the Wateree Canal there is a fall of fifty-two feet; it is estimated that the driving force obtainable here is equal at the minimum to 5,700 horse-power, and at the maximum to 8,800. At the Great Falls there is a total descent of 173 feet; the motive power that can be made available at this point is equal to about 21,000 horse power. These falls, both in their extent and in the

force which they create, can be compared with the Yadkin Narrows in North Carolina, but as yet they remain to be fully developed. Broad River also contains a number of important water powers; the fall in this stream at Columbia, which is equal to about forty-one feet, furnishes the mills in that city with about 17,000 horse power. There is a descent of fifty feet at Ninety-nine Island and also at Cherokee Shoals.

The numerous water powers in Georgia have only partially been made available. The driving force, equal to 10,000–13,500 horse power, created at Augusta by a fall of fifty feet in Savannah River has already been fully developed. At Potter's Shoal, in a distance not exceeding seven miles, there is a descent equal as a whole to about seventy-five feet; it is estimated that at least 10,000 horse power is available here. At Milledgeville, a motive power equal to about 2,500 horse power is created by the descent of thirty-four feet in the river. The fall at the Great Shoals of Chattahoochee River is about 120 feet. One of the shoals in the Broad has a fall of about seventy feet. At Cartersville, on Etowah River, there is, in a distance of seven miles, a descent of ninety-two feet, which, it is calculated, will produce a driving force equal to 3,500 horse power.

These are only a few of the most important water powers available in Georgia. The fall line in the streams running southward stretches across the State from Augusta, on the Savannah, to Columbus, on the Chattahoochee; without exception, as each stream passes from the upper to the lower level, it creates a propulsive force that in some cases as, for instance, in the Chattahoochee at Columbus, is equal to as much as 27,000 horse power. Tennessee River and its tributaries in the northern part of the State, which belong to a different watershed, also furnish numerous water powers.

The most important water powers in Alabama are those at the Tallassee Falls in Tallapoosa River, and at Watumpka on the Coosa. The available driving force at the

former place is equal to 10,000 horse power, while that at Watumpka is computed at 19,000.

We have now completed the list of the most valuable water powers with which nature has provided that part of the South which lies east of Mississippi River. There are many hundreds—it might even be said with accuracy several thousand—other powers in the same general division of country which are of smaller importance, but which could easily be turned to account in the manufacture of cotton goods. In time some such use will certainly be made of them. At present some of the most valuable of these water powers subserve no purpose whatever because situated in regions not yet brought into communication with the world at large by means of railroads. Naturally, the desire of persons who intend to build a new mill is, if possible, to find a site for it on a line of railway, or as near to such a highway as practicable, in order to be sure of the conveniences afforded by easy and quick transportation. Many of the new cotton mills of the South obtain their motive power from steam; with steam as the driving force, the mill can be built without regard to the nearness or remoteness of its site to any stream. Now that electricity is becoming more popular as a motive power, the same freedom is enjoyed in choosing a site within a certain radius as if steam alone were to be used. In no way can electricity be produced more economically in the Southern States than by turning to ~~account~~ the water powers; there is hardly one of these water powers of the first importance that does not lie within fifty miles of some railway; in time there will be found hugging each railroad a succession of cotton factories which will obtain their driving force, not from steam boilers, but from electrical power houses situated on the banks of streams many miles away. The example set by the great enterprise at the Yadkin Narrows in North Carolina is sure to be followed in the case of all other notable water powers of the South; every important shoal or cataract will become not only the site of a group of large factories, but also the point

from which electrical power will be distributed over a wide area of country.

Already we observe at work in the South that combination of influences which has built up such cities in the North as Fall River, Lowell, Lawrence, and Holyoke. Danville, Weldon, Columbia, Augusta, Columbus, to mention a few in a hundred, scattered over a broad division of country, that owe their existence chiefly to their nearness to a great water power, are certain to become, as time passes, the principal centres of American cotton manufacture, with a proportionate expansion in wealth and population. All these towns were founded long before the War of Secession broke out, but it was not until the new system came in that the future seemed to hold out to them a prospect of extraordinary prosperity through the manufacture of that great staple which the Southern people had previously been content to produce simply as a raw material.

CHAPTER XIII

PRODUCTS OF HAND AND MACHINE—(Continued)

As a means of success in cotton manufacture, an abundant supply of labor is perhaps even more important than an abundant supply of water power. No part of the Union is in possession of a larger number of workingmen for its cotton factories than the Southern States. So far the operatives in the mills situated in this region are drawn well-nigh entirely from the white population. Many thousand negroes are employed about the Southern blast furnaces, coke ovens, rolling, oil, and saw mills; for the rough form of labor which these branches of industry require, they have shown themselves to be so well fitted that it is quite probable that they will always be able to meet successfully the competition of white men. But so far the only blacks employed in the cotton mills have been those who are willing to serve in the very humble capacity of coal heavers, firemen, floor washers, and as roustabouts in the yards—departments of labor in which they are withdrawn from association with the white operatives. A few also are occasionally engaged in the picker department.

The disinclination of the Southern cotton mill owners to make use of the negro in the principal work of the factories is due to several causes: (1) there is a general feeling that the whites have suffered greatly from competition with this race in agriculture and other branches of coarse and more or less unskilled labor, and therefore it is only just, if all else is

equal, that they should have a monopoly in the cotton mills; (2) a strong belief prevails among the mill owners that the whites are much better fitted by natural aptitude for cotton manufacture than the blacks, who are distrusted on account of certain traits of character, which are not of such serious importance in branches of industry where strength takes precedence of skill; and finally (3) the white operatives themselves decline to work with negroes at such close quarters. A very large proportion of these operatives are women, a fact which greatly emphasizes the hostility to the association of the two races in the mills; indeed, makes that association permanently impracticable. As the services of the white women are secured at a low rate of wages, and as they are very skilful in the different departments of manufacture, there would be no inducement to mill owners to employ negroes to take their places, even should the white male operatives offer no opposition to the presence of the blacks. In 1899, an attempt was made to introduce negroes into one of the cotton mills at Atlanta; the white operatives abandoned the factory, and the black had to be dropped before the white could be persuaded to return.

The experiments so far undertaken of confining the work of a cotton mill entirely to negro labor have not proved encouraging in every instance. The Vista Cotton Mills at Charleston, South Carolina, in which the only whites employed were the head men, had a short and unfortunate career. It was hoped that the lower rate of wages at which the black operatives were engaged would place the mills on a sound financial footing, but it was soon found that owing to the negroes' repugnance to a continuous occupation, it required many more black operatives to carry on the manufacture than it would have required if white employés had been engaged. Much valuable time was lost by the negroes connected with this factory in making excursions and in enjoying numerous unnecessary holidays. A mill owned in large part and entirely operated by blacks has been built at Concord, North Carolina, but it has not been sufficiently

long under way to show the capacity of their race for cotton manufacture when the workingmen are left practically to themselves. A silk mill employing 350 negro boys and girls has been in existence at Fayetteville, North Carolina, for several years, and so far it has been successful.

As long as so many white operatives can be obtained at a low rate of wages for the Southern cotton mills, there is little probability that blacks will be employed in these mills. While their capacity for the lines of cotton manufacture requiring some skill is perhaps greater than it is generally thought to be, there can be little doubt that certain racial characteristics will always diminish the success of negroes in this department of industry, just as the same characteristics have done in those departments of agriculture and the like which require nice discrimination, exacting attention, and delicacy of touch. Work in a cotton mill is as continuous and confining as work in a well-ordered carpenter's, blacksmith's, or saddler's shop. The same qualities that will always prevent negroes from taking, by mere force of skill, a leading position in the mechanical trades, will be at play to prevent their supplanting the whites, or even acquiring a foothold among them, in the cotton mill. At the same time, it is not improbable that the experiment of operating such a mill with negro labor alone will continue to be tried, perhaps with more success than has yet attended it.

Fortunately, the South is not dependent on negroes for a supply of labor in the cotton mills. In the mountain regions of all those Southern States in which cotton manufactures have been successfully established, there is a vast number of poor white people who are engaged in eking out a scanty subsistence by the most primitive methods of cultivating small patches of infertile ground. The only inducement held out to them to till the soil at all is the very contracted needs of their simple households. They have known only poverty from birth, and expect no real alteration in their condition. They live in rude huts, often

devoid of windows, and without comforts and conveniences; many own neither horse nor vehicle; few can read or write; and fewer still have any knowledge of the world beyond their mountain slopes and valleys. And yet these indigent people have many qualities that, under the influence of a more favorable environment, always make them useful and valuable citizens; they are hardy in body, sturdy in spirit, reliable in disposition, and not averse to work when the compensation is certain and satisfactory.

To this section of the Southern population, an opportunity has now been presented, by the rapid increase in the number of cotton mills, of improving their general condition; a new field has been opened for the poorer classes of the Southern rural districts, and through it, they have the chance of securing all those social and pecuniary benefits that have been long enjoyed by the factory operatives of the North. In the remote interior regions from which the mill operatives of the South are drawn, there are few schools, few churches, small social advantages, and no really remunerative occupations. In all the mill villages, on the other hand, there are excellent schools and churches, numerous social advantages, and employment at fair wages for every day of the week except the seventh. It has followed very naturally that, as a body, the Southern cotton mill operatives are perhaps the most contented working people to be found in their branch of manufacture in the Union; they have only to contrast their present condition with their condition in the recent past to remove any doubts in their minds as to their real advancement in life. Unquestionably too, the fact that, practically with no exception, the operatives are natives of the country has much to do with the prevailing satisfaction. It has been noted in all the principal mills of the South that the pay rolls show only Anglo-Saxon names; and that these names are identical with those found on the regimental rosters of the Revolutionary, Indian, and Mexican Wars, and the War of Secession. The fact that they have a common blood, and that they are

natives of the same region, has brought about in the relations of the employers and employés far more of the patriarchal spirit than is observed in other parts of the United States, where the population is largely foreign by birth, and is less bound to one locality by special ties. In North Carolina, for instance, not only the whole body of mill operatives are natives of the South, but also ninety-nine among every one hundred of the owners and managers of the factories are natives of the State. Many of the managers have kinspeople of their own in their mills, and are moved by ties of blood and friendship as well as by humanity and their true interests to ameliorate the condition of their workingmen. The same state of things substantially prevails throughout the South.

In consequence of these combined influences, labor organizations have made small headway among the mill operatives of the Southern States. The only strikes that have taken place among them have been purely local. In 1898, there was a serious one in the Augusta, Georgia, district, owing to a dispute over a question of wages, but it was soon adjusted. In North Carolina and South Carolina, no strike of importance has occurred; indeed, in 1900, the operatives of but one mill were members of a labor union.

It is improbable that labor organizations will ever come to have a strong foothold in the Southern cotton mills; if for no other reason, because these mills are unlikely to increase so rapidly as to outstrip the capacity of the poorer classes of the local white population to furnish a new supply of operatives in a crisis. There is a vast region in the Southern States along the Appalachian Range which can never be developed agriculturally; the inhabitants of this region, finding no profitable employment at home, will continue to look to the cotton mills as an opening for bettering their condition. They will form a reserve force upon which the mill owners can always draw, not only when they wish to obtain operatives for a new factory, but also when they need substitutes for those who have gone

out on a strike. The hundreds of thousands of men, women, and children who will always be found in the mountain valleys and coves, and along the mountain sides, will ever be a menace to the success of any labor organization among the employés of the Southern mills; and the presence of this population is certain to make such unions more cautious in their demands.

The labor associations have an even more hostile section of population than the mountaineers to contend with in case the mill owners should resent any attempt on their part to dominate the mill operatives. Universal as the sentiment in the South is that the textile industry should be confined to white labor, yet in case such labor, under the influence of the federations, should prove unreasonably and unjustly exacting, there would be no hesitation among mill owners in employing the negro in cotton manufacture. It would never be possible to organize the black operatives, for their interests here, as in the purely mechanical trades, would prompt them to avoid a labor union. Apart from all other influences that tend to preserve harmony between the mill owners and mill operatives of the Southern States, this potential competition of the blacks is certain to have a powerful effect, for an indefinite length of time, in maintaining peaceful relations between employer and employé.

The presence of an unusual proportion of women and children in the Southern mills is an additional influence that diminishes the success of labor unions among the operatives. There is a growing sentiment among the Southern people that no child under twelve years of age should be allowed to work in the factories, but such a rule has not yet received legislative sanction in all the Southern States. In Maryland and West Virginia, it is forbidden by statute to employ in a mill a child younger than twelve years. Kentucky has adopted a compulsory school law, which, in its practical operation, makes the working of children under twelve impossible. The legal limit in Tennessee is fourteen. There is no limit as to age in the other Southern States at this

writing, though the agitation of the question has recently been renewed with great vigor.

The influence of public sentiment, even in States where the limit as to age remains undetermined, is shown in North Carolina: in the three years previous to 1900, the number of operatives under twelve years of age fell off from 6,800 to 3,200; and during the same period, the number of adult male operatives increased in proportion.

In nearly all the cotton factories of the South, the spinning frames are designed for the use of children; these light and small frames do not unduly tax their strength, and the chief objection to the children's employment in this and similar tasks is that they are deprived of an opportunity to acquire a common school education. Many of the manufacturers have founded schools for their youthful operatives in order that they may obtain the rudiments of knowledge in the intervals between their work in the mills. There is also a sentiment among a large section of the mill owners in favor of a compulsory instruction law, which would adjust the school hours so as not to prevent the employment of children in the lighter tasks of the factories.

The number of young children at work in the Southern mills has, in recent years, been the occasion of some censure, but it may be urged in defence of their presence: (1) that children of every age in the South have a greater degree of maturity than children of the same age in a colder and less sunny region, like that of New England, for instance; (2) that the factories, owing to the mild climate, can, during the far greater part of each twelve months, be kept open, both as to doors and windows, without serious discomfort to the operatives, and, in consequence, the confinement for the larger portion of each day under a single roof is not so injurious to health as it would be if the whole building had to be closed; (3) that the children engaged in running the spinning frames are the offspring, as a rule, of indigent farmers, and if they were not employed in the mills, would be compelled to work with hoe and plow in the fields under a debilitating sun.

The proportion of children among the operatives of the Southern factories is shown by the latest enumeration for the mills in North Carolina; in 1902, the number of employés in these factories was estimated at 45,044, of whom 18,177 were men, 18,871 women, and 7,996 children under fourteen years of age.

As a rule, the length of a day's work in the Southern cotton mills is about eleven hours. Both in Georgia and South Carolina the limit of the week's labor is fixed at sixty-six. In nearly all the Southern cotton factories the work of the week ends at twelve o'clock midday on Saturday. The longer hours prevailing in the mills of the South are due, first, to the fact that the climate at certain seasons does not allow the same intensity of application as the climate of the Northern States; and secondly, to the fact that the great body of the Southern operatives have been drawn from the farm, where the life had imparted to them from their earliest years a certain slowness and deliberation of movement.

The average wages which the operative receives in the cotton mills of the South are smaller than the average amount paid the operative in the Northern mills. It is estimated that the outlay in meeting this one item of the cost of manufacture is 30 per cent less in Georgia than in Massachusetts. The lower rates of wages prevailing in the Southern factories have their origin chiefly in the difference of climate; as the season of cold in the South is much shorter than in the North, less fuel is needed throughout the year; and for the same reason the clothing is less heavy, and therefore less expensive. It is calculated that in the general cost of living the Southern mill operative possesses advantages over the Northern that are equal in value to at least $100 in the space of twelve months.

Apart from the greater cheapness of each article consumed in the household, the comparatively low rates of wages are in some measure governed by the fact that the operatives were accustomed to no remunerative employments before entering the mills, and are, therefore, more

disposed to be content with a smaller degree of compensation in their new occupation than would have satisfied them had their previous lives been more prosperous.

There is a wide gap between the wages of men and women employed in the Southern mills. In North Carolina, the highest rate for a skilled male adult is $2.50 by the day, while the highest rate for a skilled female adult is $1.50. The unskilled female hand is paid from thirty to seventy-five cents, and the unskilled male from sixty cents to one dollar. The usual wages for a child are thirty cents, and few children are paid a lesser sum. Where payment is made for work by the piece, which is the rule in many of the mills of North Carolina, the spinners, who are almost always children, receive a day's wage of sixty to seventy-five cents. In the same State the average daily wage of a weaver who is paid by the piece is about ninety cents.

In South Carolina, where the weavers also work by the piece, the average daily earnings of this class of operatives range from eighty-five cents to one dollar and ten cents, while sixty to seventy cents cover the average daily earnings of spinners in the same State. The daily wage for unskilled labor does not exceed sixty-five cents.

In Georgia, the average daily earnings of weavers vary from $1.00 to $1.25; in many of the mills the children receive as much as fifty cents for a day's work, and their wages in no case fall below twenty-five. The average wages by the week in the mills of Augusta and Atlanta range from $4.00 to $4.50; in this estimate the compensation of the overseers is not included, which would raise the general average to nearly $5.00 by the week.

The wage lists for the Carolinas and Georgia are substantially the same as those for the other States of the South in which cotton manufacture is actively carried on.

With the rapid growth of the cotton manufactures of the Southern States, there has sprung up a number of schools which are seeking to give every facility for the acquisition of the most thorough training in the textile industries; the

principal institutions of this kind are Clemson College, in South Carolina; the College of Agricultural and Mechanical Arts at Raleigh, North Carolina; the Institute of Technology at Atlanta, Georgia; and the Agricultural and Mechanical College at Starkville, Mississippi. The instruction in the textile departments of these institutions is designed especially to equip young men to fill successfully the positions of overseers and managers or superintendents of cotton mills, with which view the students are grounded, not only in the actual working of the machinery, but also in all the most advanced methods of designing, copying, and printing.

The course of instruction in the Agricultural and Mechanical College of North Carolina extends over a period of four years for each of the two separate branches of the textile industry, namely, cotton manufacture and dyeing. In the department of cotton manufacture, there are courses in cotton carding, spinning, and weaving, and in designing and mill engineering; in the department of dyeing, on the other hand, there are courses in organic chemistry, in the chemistry of dyestuffs, in dyeing proper, and in qualitative and quantitative analysis. The general equipment of this college for textile instruction consists of a very large building, which contains a complete number of the machines required to illustrate the process of manufacturing every variety of yarns and woven fabrics. Its carding and spinning frames and its looms are of the most recent patterns.

Clemson College, in South Carolina, was established in 1893, and five years later its textile department was thrown open to students. The textile course in this institution covers a period of four years; the first two years, however, are devoted to general instruction, regardless of special lines and only indirectly bearing on manufactures; thus it embraces courses in mathematics, chemistry, natural philosophy, geometry and drawing, wood, forge, and foundry work. In the third and fourth years, practical instruction is given in the making of cloth, such as carding, spinning, weaving, and dyeing; and at the same time, the student is carried



Custom House at New Orleans, Louisiana.

E LIBRARY
OF THE
IVERSITY
OF
LIFORNIA

through the higher branches of mathematics, mechanics, and applied chemistry. He is also trained in the different branches of work in the machine shop, and thoroughly informed as to the proper manner of building a mill and protecting it from fire. In 1900 there were forty-eight students enrolled in the textile department, which was presided over by four experienced teachers.

The courses of instruction in the various branches of the textile industry are among the most important and extended given in the Agricultural and Mechanical College at Starkville, Mississippi. There have been erected here buildings modelled upon a cotton mill of the most improved design, and in it the students obtain a practical knowledge of all the different operations in cotton manufacture. The equipment of the Technological Institute at Atlanta, Georgia, is quite as fine, and its courses of instruction are also as complete.

The work which these great schools are doing is not only of extraordinary value in itself in training a large number of Southern young men to fill the most responsible positions in the Southern cotton mills, but it is also of the highest importance as setting an example which every commonwealth in the South will sooner or later follow. Nowhere in the Union is the most thorough technical instruction in the highest branches of the textile industry so urgently needed as in the Southern States to-day, if these States are ever to pass beyond the first stages of cotton manufacture, which consists simply of the production of the coarsest fabrics. These fabrics include yarns, sheetings, shirtings, warps, drills, hosiery, bed ticking, cotton batting, towels, ginghams, cottonades, cheviots, duck, jeans, carpets, rope, bags, and the like. Since the making of these varieties of cotton goods in large quantities was begun in the South, there has been a steady improvement in their quality, but down to the present day the principal output of the Southern mills has consisted of raw material to be worked up in the factories of the North. The yarns are sent to these factories to be spun or woven,

the print cloths to be printed, the sheetings and shirtings to be finished. In other words, the Southern manufacturers have so far failed to diversify the products of their mills to the extent that the highest welfare of the textile industry in the Southern States demands. The North still retains its supremacy in the making of the finer articles; and that supremacy will continue indefinitely unless the Southern manufacturers direct their principal attention, not to increasing the output of the present fabrics, but to diversifying it to the utmost. This can be accomplished only by the scientific education of the operatives. The laborers now employed are, as a mass, entirely unskilled in the making of the finer grades of goods; and until they have been systematically taught, the development of the cotton industry in the South will be along the present common lines. As we have seen, several of the Southern States have already established courses of instruction in the textile arts; this is the first step to advancing the manufacture of cotton to a higher and more profitable footing. It is generally acknowledged that the mills of the South are among the best planned, best ordered, and best equipped in the United States. The machinery, having, as a rule, been recently purchased, possesses all the latest improvements which ingenuity and experience can suggest. Until a wide diversification of product is begun, however, it is not probable that the Southern mills will become serious competitors of those of New England. At present, the mills in the latter region have practically abandoned to the Southern the making of the lowest grades of cloth. Some of the owners of New England factories, who have been long engaged in the production of the coarse fabrics, anxious not to lose the advantage of their established brands, have, rather than give up the making of these fabrics entirely, erected plants in the South for the continuation of their manufacture there. Such cases, however, are exceptional. As a rule, the New England mill owners have been content to retain their brands in the finer line of goods, and have given up their brands of coarser products.

The Southern manufacturer of coarse cotton fabrics is at a disadvantage in comparison with the Northern manufacturer of fine cotton goods when the raw cotton is commanding a very high price in the markets of the world. The coarse grades of cloth are generally disposed of in countries like Africa, China, and Japan, where the fluctuations, from year to year, in the value of raw cotton are not taken into the same account as in the countries where the fine fabrics are sold. Whether cotton brings in Liverpool, New York, and New Orleans five or ten cents a pound makes little difference in the value of the coarse cloth when it is offered for sale in these far-away lands, where the purchasers are not only more ignorant, but also less wealthy than in the nearer and more sensitive markets. Should the exporters of the coarse stuffs raise the prices of their goods, they would soon find that these prices must be lowered if the field is to be held against competition, which is all the more fierce in the years when raw cotton is very dear. Even in the remote markets of Africa, China, and Japan, the New England manufacturer of coarse fabrics of a long established brand obtains a higher price for his goods than the Southern manufacturer, whose brands have not yet had time to become so familiar to those distant peoples, who are the most conservative in their tastes in the world. Certain coarse goods bearing the New England mark are now, as we have remarked, very frequently made in mills in the South owned by New England capitalists, but they are found still to have this advantage, due not to any superiority in the quality of the articles, but merely to the length of time their brand has been known in the foreign market.

In many parts of the South, the cotton manufacturer, as soon as he is forced to purchase raw cotton outside of the limits of the State in which his mill is situated, enjoys no real advantage over the New England mill owner in the fact that he is less far away from the cotton fields. That he does not is due to the freight discriminations of railway lines that find it to their interest to protect the Northern

factories from the full force of the destructive competition of the Southern. If the freight charges were in proportion to distance, the smaller charge to be met by the Southern mills, would in itself alone place them in a position which would compel the New England mills to close their doors, unless they could continue to have a practical monopoly of the manufacture of the finer goods, a field the Southern mills, as we have seen, have not, to any great extent, yet entered. In 1900, the freight charge on one hundred pounds of cotton from Little Rock, Arkansas, to Columbia, South Carolina, was sixty-eight cents, while from Little Rock to Fall River, Massachusetts, the freight charge was only forty-seven cents, a difference of twenty-one in favor of the Northern factories. In reality, the mills of New England can obtain a supply of raw cotton from Texas at a freight rate certainly as cheap as the South Atlantic mills can obtain it, and their greater distance from that abundant cotton field is not a factor in the relative profits earned by the two sets of mills. Unless, therefore, the cotton mills of each of the South Atlantic States can purchase the raw material they require within the borders of the State itself, as all cannot now do, they do not possess a sweeping advantage over the rival establishments in New England. The Southern factories situated in districts where cotton is grown in large quantities undoubtedly enjoy a marked superiority over the New England factories in the point of freight; to the extent to which, for instance, the mills of North Carolina absorb the annual crop produced in the soil of that State, they secure a supply of cotton at a cheaper freight rate than the New England mills; but when the Carolina mills have to make good the shortage by purchasing in the markets of Memphis or New Orleans, they, as far as that shortage goes, stand on the same footing as the factories of New England.

The advantage which the Southern mills enjoy in their nearness to the cotton fields is practically confined to those fields which are in a radius of fifty or a hundred miles

from the factory door. The product of these neighboring regions really forms an enormous proportion, though far from the entire quantity, of the Southern cotton crop. Every bale consumed in the New England factories has to be transported from a great distance, while a very large number of the bales consumed in the Southern are brought from points very near at hand; in spite of discriminations in freight rates for the benefit of the New England mills, the general balance of freight charges is thus necessarily to the greater advantage of the Southern.

The cotton cloths made in the Southern mills are delivered in New York, where the agencies for the general distribution of such fabrics are established. It is estimated that the freight charges on every bale of cotton goods sent to that city by the Southern manufacturers average from fifty-five to sixty cents on every one hundred pounds weight; on the other hand, the average charge on every one hundred pounds weight of similar goods forwarded to New York by the New England mills does not exceed fifteen cents; the advantage in shipping the finished fabrics is, therefore, in favor of the New England factories to the extent of at least forty cents for every one hundred pounds of the manufactured article. It follows that, if these factories could obtain their raw cotton at precisely the same freight rates at which the Southern obtain theirs, the latter, unless they had special advantages of another kind, would occupy an inferior and a very precarious position. A bale of raw cotton weighing 500 pounds can be transported to New England for about $3.30, while a bale of finished cotton goods weighing 500 pounds can be sent to New York from the South for $2.75. The one is worth about $45; the other about $100. It is partly this difference that gives the Southern mills their great superiority over the New England in the manufacture of the raw cotton coming to their doors at a low freight charge. On the other hand, in the manufacture of the raw cotton that has been brought to their doors at the high freight charge the

New England mill owners have to pay, the Southern mills are saved from a fatal rivalry with the New England (on account of the latter's ability to ship finished goods to New York at so much less expense) only by those special advantages which they enjoy in longer hours of work, cheaper labor, and less costly fuel or motive power.

This question of freight rates, as an element in the competition between Northern and Southern mill owners, will assume far greater importance when the Southern factories begin to produce the finest grades of cotton goods. At the present time, the two sets of mill owners occupy each an entirely separate part of the field—the Northern manufactures the finer fabrics, the Southern the coarser. The rivalry as yet has not reached the acute stage. So far, the Southern mills have only driven the Northern from the production of coarse goods; the real trial of strength will come when the Southern mills enter the department of fine goods. In this trial, the relative freight rates to the Southern factory and the Northern factory will perhaps be the controlling element in the situation. There can be little doubt, however, that when the Southern mill owners begin to make the finer fabrics, they will have to give up, in some measure, the advantage now possessed by them in the cheap and practically unskilled labor which performs the work of coarse manufacture perfectly well. But that labor will not serve the end of a finer manufacture unless it is more thoroughly trained and drilled; when it does assume this character, the same scale of wages will have to be adopted in the Southern mills devoted to fine fabrics that now prevail in the Northern; moreover, the operatives in these mills having been made indispensable by the special art which they will have acquired, will be in a much better position to demand the same schedule of hours as that long enjoyed by the skilled workingmen in the Northern factories. The supreme point then will be the cotton field itself. Will the Southern mills engaged in producing fine goods be allowed to use to the fullest the advantage which

they possess in their situation in the cotton region, or will they continue to be deprived of this advantage, as far as it is possible to do so, by the action of the great railway lines, which not unnaturally for their own good wish to preserve the existence and maintain the prosperity of the Northern factories? There can be no doubt whatever that if the freight rates in the future are adjusted in proportion to distance only, the Southern mills, when they come to manufacture the finer goods, will enter into a competition with the New England mills that can have but one result, namely, the total destruction of the latter mills. Even should the present freight discriminations in favor of the New England factories continue indefinitely, such competition on the part of the South in the production of the finer goods would be highly injurious to these factories as long as the Southern mills can go on obtaining a large proportion of their raw cotton in the country immediately surrounding them, either without any freight charge at all, or at a rate extremely low.

Looking at the situation from the point of view of the general welfare of the whole country, it would seem desirable that New England and the Southern States should continue, as they are now doing, to divide the field of cotton manufacture in the United States—the one retaining the production of the fine fabrics, the other the production of the coarse. The South has an advantage in the way of abundant, cheap, and contented labor in her own department of that manufacture not enjoyed by any other part of the world. In this department she is now supreme, and nothing is likely to deprive her of this supremacy. The construction of the Isthmian Canal will broaden the Eastern market for all American goods, and in reaching that market, the South, from her proximity to Panama, will possess a superiority over all her rivals in her rates of transportation. Inevitably, the construction of the canal will make New Orleans and not New York the principal distributing point for the coarse products of the Southern factories. This greater

nearness to the Orient will in itself alone be sure to continue the supremacy of the South in this department of cotton manufacture. The Far East is now the chief market for her coarse goods, and its rate of consumption will be very much increased when it can be supplied with these goods at a lower price.

Will the South be content to remain a manufacturer of coarse cotton fabrics only? The extraordinary interest now shown in textile schools in that part of the Union, the success of leading States like North Carolina, South Carolina, Georgia, and Mississippi in establishing schools of this character—all point to the early enlargement of the sphere of cotton manufacture in the old slave communities by providing a numerous class of native operatives thoroughly trained in the highest branches of the industry. It would not be strange, in the light of what has already been accomplished there in this department of manufacture, if, at the close of a half century, the production of the fine fabrics in the South had not been carried as far as the production of the coarse has already reached.

It is a favorable sign for the future diversification of the product of the Southern mills, that a large proportion of those now in operation were built with Southern capital. For instance, in Georgia, in 1900, of the seventy-five mills situated in the State, twenty-nine belonged entirely to its own people. The factories owned by Northern investors were generally erected chiefly for the preservation of valuable trademarks in coarse goods which could no longer, in competition with the Southern mills, be made at a profit in the North. Such was the case with the great Massack Mill at Georgetown, Georgia, and the Merrimack Mill at Huntsville, Alabama. If the manufacture of the fine fabrics in the South were dependent on an outlay of Northern capital it would, in all probability, never be introduced, for naturally this capital, as long as the Northern factories have the supremacy in the higher branches of production, would remain in the Northern field as the best for its employment.

Southern capital, however, as soon as the manufacture of coarse goods in the Southern mills is somewhat overdone, is likely to be directed to the manufacture of fine goods as the next most promising opening for its investment.

It shows how general is the confidence felt by the people of the South in the profitableness of cotton manufacture that the capital stock of the mills now in operation is, to a very large extent, held by members of every class in the community. When the building of a new factory is undertaken, the value of the shares is, as a rule, fixed at $100 each, and these are usually taken in blocks of ten, for the most part by persons who pay for them in weekly instalments. This is especially the case in North Carolina and Louisiana. Among the principal subscribers are the small merchants of the village where the mill is to be erected, the local banks, and the planters in the surrounding country. It has been found in many parts of the South that the planters purchase a larger amount in proportion to their number than any other section of the population, because they really derive more benefit from the building of a new factory; the new factory creates a market at their doors for the sale of their raw cotton, which can be dumped, practically at no expense for hauling, in the very yard of the mill; it also raises up a new market for the sale of the products of their farms, gardens, and dairies. In addition to these advantages, it furnishes the children and wives of the farmers living in its vicinity with profitable employment. The merchants subscribe to the stock of the new factory because it will increase the demand for their goods by enlarging the population of the community; the local banks subscribe, because it will swell the volume of their deposits; and so with the members of the different professions—every one buys a share or two because he anticipates some personal benefit from the erection of a new mill in his immediate neighborhood. Its output, when it is built, draws hundreds of thousands of dollars into the community from abroad, where before, perhaps, the only general

income of importance was derived from the sale of the raw cotton. It is like a living stream pouring into what had before been comparatively a waste and barren spot. If a small village was already in existence where the mill is situated, it rapidly grows into a small town; and if there was no village there, one soon springs up within a stone's throw of the factory door. Should the first mill erected prosper, it is either greatly enlarged as time goes on, or a second is built close by it. In a few years, a third rises, a fourth,—all belonging to the same original company. Then other companies are formed, and other mills, under the control of an entirely different ownership, are built. The small town has now expanded into a small city, with interests widely diversified by the great variety of demands upon its resources created by the ever enlarging group of cotton mills that has sprung up in its very midst. Such is the history of many of the most prosperous new towns of the Southern States—the first cotton factory was the germ from which all their wealth and population has grown.

Of all the industries of the Southern States, cotton manufacture is the one that will do most toward increasing the number of Southern cities. An increase in the number of these cities will mean a more general diversification of Southern interests; hitherto, these interests have been too much concentrated in the rural districts, and too much in one great industry—agriculture; cotton manufacture will in time break the back of this preponderance. From southern Virginia to western Texas, the cotton plant is grown; practically every division in that vast area of country is yearly able to supply an enormous quantity of raw cotton for manufacture. Every division in its eastern part, as we have seen, contains a great number of water powers, and wherever in the South these powers do not exist, steam can be used to the highest advantage owing to the cheapness of fuel. If cotton manufacture, therefore, promotes the growth of villages, towns, and cities, as there is every proof that it does, both in the Southern and the New England States,

then there is no part of the South where villages, towns, and cities cannot in time spring up, for everywhere the manufacture of cotton is encouraged by the local conditions. From having been the part of the Union where there were the fewest great centres of population, it is not improbable that, in consequence of the growth of cotton manufacture, the South will, in time, become the part where such great centres are most numerous. In the train of this manufacture, there will follow all other manufactures, and from having been a purely farming and planting section of country, the Southern States are likely to become a section as remarkable for the diversity of its manufactured products as of its agricultural, varied and abundant as are the latter.

CHAPTER XIV

PRODUCTS OF HAND AND MACHINE—(Continued)

Up to the present time, the manufacture of woollen goods has not risen to a flourishing condition in the Southern States, though it has not been entirely neglected. In several of these States, the industry has declined in recent years; thus in Georgia, in 1870, there were forty-six woollen mills, with a working capital of $936,585; by 1880, the number had fallen off to thirty-two, with a working capital of $180,733; and by 1890, to eighteen. The capital employed in 1890, however, was more than double that employed in 1880; in 1880, when the mills numbered thirty-two, the value of the product did not exceed $239,390; on the other hand, in 1890, when the number had fallen off to eighteen, the value of the product had risen to $340,095.

In 1898, Texas produced 16,380,442 pounds of wool, and yet only four woollen mills were in operation there during that year; it would appear from this that the presence of raw wool in abundance does not promote its manufacture in that State. In the other Southern commonwealths, where there is more disposition to build up every branch of manufacture than in Texas, the absence of woollen manufactures is, in some measure, due to the little encouragement given to sheep raising which naturally diminishes the supply of the raw material. In 1898, out of 1,625 woollen factories in the United States, only 104 were situated in the

South. The Southern State containing the largest number was Virginia; here there were twenty-seven, with a working capital of $708,000; West Virginia followed with twenty-four, possessing a working capital of $178,000. In 1899, there were eight mills in Maryland; and, in 1902, fourteen in North Carolina.

Passing from the production of cotton and woollen goods to other branches of manufacture, it is found that the use of the cotton plant is not simply to supply the spindle and loom with the material for cloth; in the course of the last twenty-five years, the cotton seed has been consumed in the making of various articles, chiefly oil, which brings to the Southern States an annual income of $40,000,000; and in some years, the income from this source probably rises to $50,000,000. Over $100,000,000 is invested in the industry, and it gives employment to at least 50,000 men. A quarter of a century ago it was a problem as to how the seed should be disposed of, and many gins were placed over running water as a means of getting rid of these seeds without the expense of having to haul them away. In 1867, the number of oil mills in the South did not exceed four; three years later, 1870, the number had grown to twenty-seven; by 1880, the twenty-seven had grown to forty-five; and at the end of the next ten years, the forty-five had expanded to five hundred. By 1900, the number of tons of seed crushed in the Southern mills had reached a total of 2,426,546 tons.

It is calculated that as yet not more than one-third of the annual growth of cotton seed finds its way into the hoppers of the mills. This is partly due to the lack of facilities for its transportation. A large proportion of the cotton crop from year to year is raised by small landholders, and their production of seed is not in sufficient quantities to induce them to save it for sale unless there is an oil mill in their neighborhood. In order to surmount the obstacles created by the remoteness of so many of the plantations, small mills in large numbers have been built

at a considerable distance from the principal centres of population. These mills are designed to furnish a market, each for a single narrow division of country, and to them the planters haul their cotton seed regardless of the smallness of the amount; in the aggregate, however, a very large quantity is thus saved, which otherwise would be left to rot. The product of these small establishments consists of loose hulls, meal, and oil. As the owners of the mills have bought their raw material over the counter in small lots, so they dispose of a great part of their output over the counter at retail. The chief proportion of the oil, however, which is of a very crude quality, is shipped away.

The finest kinds of cotton oil are produced in the mills situated in the cities, to which every facility of transportation is afforded for bringing in large quantities of seed, and sending to distant markets the oil which has been extracted. In these mills, all the different grades of cotton oil are manufactured.

It is estimated that one ton of cotton seed, will, with the machinery now in use, produce forty-five gallons of oil; a ton of seed really contains about five gallons more, but as yet no machinery has been perfected for expressing the last drop from the pulp. The fineness of the quality is, in some measure, dependent on the character of the season when the seed was grown. The product of upland cotton gives out a clearer oil than the product of the sea island, while the oil expressed from the American seed is distinctly superior in flavor to that obtained from Egyptian or East Indian.

The oil from cotton seed is chiefly consumed in the preparation of various food stuffs; it has been largely substituted for all the well-known oils which have been employed immemorially in cooking, while considerable quantities also enter into the manufacture of soap, cosmetics, and the like. In recent years, it has also been substituted in an increasing degree for the oils generally used in illumination;

and a large amount is also consumed in the altar lamps of the Greek and Roman Churches. Varied as are the purposes which the oil expressed from cotton seed now subserve, it is not known to commerce as cotton seed oil; it is sold under diverse names that have long enjoyed a great reputation, such as "olive oil," "salad oil," and the like.

The present rate of consumption of cotton seed oil in the United States is about nine hundred thousand barrels, nearly one-half of which is used for lard compound, while about two hundred thousand are consumed in soapmaking, the remainder being chiefly utilized for oleomargarine, salad oil, cooking, and illuminating. As yet, it has not become in the United States, to a preponderating extent, a substitute for kerosene, but it is probable that, as the national supply of petroleum declines, cotton seed oil will take its place. Its use in the manufacture of oleomargarine products is almost certain to increase far beyond the degree of its present consumption in that form.

The quantity of cotton seed oil shipped to foreign countries has steadily grown in recent years. The number of barrels exported in 1900 was nine hundred and sixty-five thousand, or sixty-five thousand barrels in excess of the number consumed in the United States. The largest customer abroad is France; the Netherlands follows next, although at a considerable distance. These two countries alone buy nearly one-half of all the cotton seed oil sent out by the United States.

There is reason to think that the demand for cotton seed oil will increase in foreign countries as steadily as it has done in our own, of late years. This oil is altogether a product of the Southern States, and its extraordinary advance in popularity, which has already contributed so much to the prosperity of these States, promises to make far greater additions to their accumulated wealth in the future as the virtues of the oil continue to become more widely known. The manufacture of cotton seed oil in the South

OF THE
UNIVERSITY
OF
CALIFORNIA



Jackson Square, New Orleans, Louisiana.

is one of the most important sides of the growing diversification of industries in that part of the Union, from which so much advantage has already been derived, although as yet in its infancy. It is all the more indicative of the enterprising spirit now urging on the Southern people that this branch of production was practically untried until after the close of the War of 1861–1865.

This fact seems to strengthen the hope that in time the large peanut crop of the Southern States will be made far more valuable than it is now by turning the oil of the nut to commercial uses. Up to the present day, the annual crop of peanuts is sold simply as a nut, but specimens of peanut oil obtained in Tennessee show that it is as clear and pleasant to the taste as olive oil. Large quantities of peanut oil are produced in France; there it is used in the manufacture of oleomargarine, and also as a general substitute for olive oil; indeed, a very large amount is imported into the United States from that country under the name of olive oil, from which it is not easily distinguished. The proportion of oil in the Southern peanut ranges from 30 to 50 per cent of the weight of the shelled nut; this fact will, perhaps, in time cause the nut to be used in the manufacture of oil as much as cotton seed is now used. The latter, after its oil is extracted, becomes valuable as a food for cattle; it is estimated that from a ton of crushed cotton seed there may be obtained, besides the lint, hulls, and crude oil, about 750 pounds of cake or meal, which is now consumed in large quantities, both in the United States and abroad, in fattening live stock. From a ton of peanuts, on the other hand, it is not probable that quite so large an amount of residuum is obtainable after the oil has been pressed out, but it is sufficiently great to make that part of the nut an important product from a commercial point of view. This residuum is almost as excellent a form of food for live stock, especially hogs, as the cake or meal of cotton seed. In expressing the oil, therefore, the usefulness of the nut is not entirely destroyed; on the contrary, it subserves

other purposes, which, combined with the marketable value of the oil, will make it more profitable, from a commercial point of view, hereafter, perhaps, than it has been when used merely as a nut. Among the earliest colonists of the Southern States there prevailed a hope that the soil of the new country would be found adapted to the olive tree; and there were many experiments in growing it, only to end in failure. It appears remarkable that, several hundred years after the first settlements were made, the most important plant of the South, the cotton shrub, should be found to produce an oil which serves as the most admirable of all substitutes for the oil of the olive tree, and that another plant, the peanut vine, is capable of producing an oil that serves almost equally as well as a substitute.

The advance in the manufacture of iron in the Southern States since 1876 has been almost as notable, from some points of view, as the advance in the manufacture of cotton. The South has always possessed extraordinary advantages for making iron, and the fact that these advantages were turned to so little account during the existence of the slavery system shows, even more than the failure to manufacture cotton on a great scale, how indifferent the spirit of that system was to manufactures in general. These advantages consist not simply of an abundance of iron ore, coal, and limestone, but of iron ore, coal, and limestone in close proximity to each other, as if nature had thus designedly associated all the materials for the manufacture of pig iron, in order, by reducing the cost of the process, to invite men to undertake it. Nowhere perhaps in the world are there assembled so near together such masses of iron ore, coal, and limestone as are to be found in the neighborhood of Birmingham, Alabama. At Ensley, Bessemer, Thomas, or Woodward, in the Birmingham district, a person who will take his stand on any one of the great furnaces erected in these towns, can, without the aid of a glass, discern the coke ovens, limestone quarries, and the coal and ore mines in Red Mountain. Nor is this practical conjunction of all

the raw materials for the manufacture of pig confined to this one district; a similar conjunction, though not to so great a degree, is to be found in other parts of the Southern States. At some places, the ore mines are visible from the furnace; at others, the coal mines and coke ovens. In Virginia, Tennessee, and Alabama, the three foremost States of the South in the production of pig, every iron company, with hardly an exception, owns the coal and iron mines and the limestone quarries from which it obtains its supply of raw material for manufacture. These commonwealths are said to be "self-contained" in this branch of industry, which means that each has in its own borders an ample store of coal, limestone, and iron ore for the production of pig in an almost unlimited quantity. Maryland at one time occupied the same position of independence, but in recent years that State has been compelled to import iron ore from Cuba, and obtain coke from the Connellsville ovens and the ovens of West Virginia.

The period in which the largest and most carefully considered development of the South's resources in pig iron took place was the interval between 1880 and 1890, during which fifty blast furnaces were erected in the three States Alabama, Virginia, and Tennessee. The sites of these furnaces were chosen so thoughtfully that hardly one has gone permanently out of operation since they were first built. About 1890, a fever of speculation swept over the entire Piedmont division of the South, and towns were laid off every few miles along the great lines of railway extending through this region, from the Potomac on the North to Huntsville, Alabama, in the South. The whole country penetrated by these lines was really very rich in coal, limestone, and iron ore, but it was not always sufficiently rich to justify the erection of an iron furnace wherever a land company had marked off the bounds of a projected city. Many furnaces were built not so much to turn to account any real combination of advantages in their situation as to encourage investment in the surrounding town lots. When

the panic of 1893 quenched the speculative fever, the furnaces which had no reason for existence from a practical business point of view, either went out of blast and were given over to rust and silence, or they struggled along precariously until the next period of prosperity set in, when, by importing their raw materials from a distance, they were able, in the general rush of orders, to earn a fair rate of interest on the amount of capital they represented. There are many furnaces in the South to-day which are seriously hampered by the fact that, instead of having been erected in the centre of the coal and ore district from which they draw their supplies, they were erected many miles away to promote the success of a speculative scheme in town building on some site considered to be more eligible for that purpose than the site of the mines themselves.

One of the worst moral results of the collapse of the land booms, which depended so largely for their prosperity on the erection of furnaces, was that, for the time being, further investment in the manufacture of pig in the South was seriously discredited. Those persons who, under more favorable circumstances, would have placed their capital in this industry were not inclined, while smarting under recent losses, to discriminate between schemes that had a sound footing and those that had not. A general impression spread that the South's capabilities in iron production had been greatly overrated, and it was not until very recent years that prudent methods of development have been able to remove this impression.

There were fewer furnaces in the South in 1900 than there were in 1890, but the production of pig iron during this interval increased 80 per cent in volume, principally in consequence of the abandonment of many of the old fashioned charcoal furnaces and the adoption of better methods of handling the raw materials. During this decade, the number of stacks in Alabama, Virginia, Tennessee, and Maryland alone declined from 132 to 121, yet the capacity of those remaining grew from 2,532,000 tons to

4,588,000; in short, the output of the furnaces nearly doubled.

Relatively, however, the advance in the making of Southern pig was greater between 1880 and 1890 than between 1890 and 1900. This was not entirely attributable to the depression following the panic of 1893; it was largely due to the growing demand during the latter interval for the Bessemer grade pig iron, which is manufactured in such an enormous amount out of the ores mined in the region of Lake Superior, but in such a small amount from Southern ores. The Southern pig is adapted to foundry and mill grades; in this branch of the industry, the South practically monopolizes the market in the United States; and it now exports large quantities of its product to foreign countries.

Between 1876 and 1901 the production of Southern pig iron increased from 151,280 tons to 2,578,864; in short, the volume of manufacture in the Southern States was seventeen times greater at the end of this interval than it was at the beginning. In the country at large, on the other hand, it was only eight times as great, that is to say, the increase was from 1,868,961 to 15,878,354 tons. With the exception of a few years only, the output of the Southern States, as a whole, has steadily expanded from year to year. The three Southern States, Alabama, Virginia, and Tennessee, produced, in 1900, about one-fifth as much pig iron as the four States of the North which stand first in this branch of manufacture; and these three Southern commonwealths also produced about one-seventh of the entire quantity of pig iron made in the United States during the course of that year.

The States of the North leading in the manufacture of pig iron possess several advantages over those of the South engaged in the same industry, which in some measure counterbalance the greater cheapness in the production of pig iron in certain Southern districts, for instance, in those lying in the immediate neighborhood of Birmingham. First, the

Northern furnaces are situated much nearer to the home markets where pig iron is mainly consumed; it follows that the freight charges that have to be met in the transportation of such iron to these markets are smaller when the shipments are made from a Northern furnace than when they are made from a Southern. Secondly, the Northern States derive an immense pecuniary benefit from the conversion, within their own borders, of the pig iron into a thousand varieties of articles which command in the markets of the United States and the world at large a far higher price than the iron does in its original raw form. Each new shape taken by the pig after passing out of the furnace adds the more to the wealth of the iron-producing States of the North. On the other hand, the iron-producing States of the South, owing to the comparative fewness of their large centres of population and the resulting absence of that extraordinary diversity of interests distinguishing the Northern communities, are compelled to send the far greater proportion of their pig iron to Northern markets to be sold to Northern manufacturers, who in time return a large part of it in a manufactured form to the Southern States to be disposed of, in no small measure, to the very persons who produced the pig. The greatest profit in handling the iron is not obtained by the Southern manufacturer of the pig, but by the Northern manufacturer who turns the pig into the different articles sought in commerce. Moreover, the Southern manufacturer is drawing upon a supply of ore which is subject in time, however remote, to exhaustion; from an economic point of view, it is, therefore, all the more urgent that the Southern States should not be content with the first profit, but instead should remain unsatisfied until they have secured the second, which is derived from passing the raw pig on to their own manufacturing establishments, there to be first converted into bars, plates, sheets, wire rods, and the like, and then into a thousand and one other forms commanding an even higher price. It is in these manifold shapes that

a very large proportion of Southern pig should be shipped to the North, there to compete with the products of the Northern mills and shops.

In time, a great diversity in the making of iron articles for sale will spring up in the Southern States, and when that condition is reached, these States will derive that greater benefit from their beds of crude ores which they now derive from converting on the ground their raw cotton into cloth, instead of shipping the whole of each annual crop to alien markets for other people to obtain the entire profit of its manufacture. This is the next great step to be taken in the development of the South—the passage from the production of a vast quantity of raw iron to the hammering and moulding that iron into countless commercial shapes. Precisely the same step that has already been taken in connection with raw cotton with such enormous advantage to the South is certain in time to be taken in connection with raw iron; a beginning has already been made, as in one year only, 1898, the production of rolled iron in Alabama, Tennessee, Georgia, and Virginia was 105,015 gross tons.

Since 1898, there has been a very notable increase in the Southern production of rolled iron; of the 527 completed rolling mills and steel works found in the United States in 1901, fifty were situated in the Southern States, distributed as follows:—twelve each in Alabama and West Virginia, nine in Kentucky, six respectively in Virginia and Maryland, three in Tennessee, and two in Georgia. The South is now producing a greater variety of articles made of iron and steel than at any previous time in her history. In the course of late years, there have been built in such conspicuous Southern cities as Richmond, Roanoke, Atlanta, Birmingham, Chattanooga, and Anniston numerous works for the manufacture of stoves, cast iron piping, car wheels, locomotives, general railway supplies, and the like. These establishments have become very large consumers of the pig and rolled product of the Southern furnaces and mills; and

as the local demand for finished goods increases, there will be more encouragement for the conversion in the South of an ever increasing amount of iron into these final shapes. When we come to examine the growth of the principal centres of Southern population in recent years as we will do in a later chapter, we shall see to what a great extent the local market for iron manufactures has already broadened.

A very important step taken toward the extension of Southern iron manufacture has been the erection in the South of basic open-hearth steel plants. At least one of these is among the most extensive that have ever been established in the United States. For many years, Maryland, West Virginia, and Kentucky have been making steel, but only from ores brought in from foreign countries, or transported from the mines situated near Lake Superior. These ores are especially suitable for the production of acid Bessemer steel, while the ores of the Southern States, with the exception of those of a very few beds, have not been found adapted to this branch of manufacture on account of the large percentage of phosphorus and silica which enters into their composition. This is especially characteristic of the ores obtained from the districts lying around Birmingham, Alabama; as early as 1888, an attempt was made to produce Bessemer steel from these latter ores, but small success attended the different experiments. It was not until open-hearth steel began to become popular with engineers and architects that the manufacture of steel assumed a more encouraging aspect in Alabama; by 1900, there were twelve basic open-hearth furnaces in the State, with a capacity to produce 1210 tons of steel a day. The largest of these furnaces is the one which the Tennessee Coal, Iron, and Railroad Company has built at Ensley, Alabama. The total annual capacity of this great plant is estimated at 300,000 tons of ingots; it rolls billets, rails, structural steel, and other finished forms; and moulds all kinds of finished castings.

The success that has attended the making of basic open-hearth steel in the South greatly increases the ability of Southern manufacturers to send the output of the Southern furnaces into the markets of the world in forms less crude than pig iron. This means that the Southern States will in time reap all the advantages that are derived from the conversion of the pig into the different finished articles used in commerce.

CHAPTER XV

PRODUCTS OF HAND AND MACHINE—(Continued)

THE entire quantity of pig iron made in the South before 1860, was made with charcoal; previous to that year, coke was not consumed in a single Southern furnace; the first coke used in any furnace in the Southern States was used in 1860 at Chattanooga in the Bluff furnace, but was soon discontinued. The earliest coke furnace erected in these States after the War was built in 1867 at Rockwood, in Roane County, Tennessee. How enormous has been the increase in the consumption of coke as compared with that of charcoal is shown by the fact that, in 1901, there were made in the South with the former material 2,462,203 tons of pig iron, but only 90,629 tons with charcoal. About 23,294 tons were manufactured with mixed charcoal and coke; and about 2,738 with mixed coke and anthracite.

After the erection of the first coke furnace in 1867, the production of coke in the South steadily increased in volume, though confined to a few commonwealths. Of the twelve States of the Union which manufactured it in 1880, six were Southern; eighteen years later (1898), the number of States in the Union in which coke was made had grown to twenty-one, nearly double what it was in 1880, but only one Southern commonwealth had been added to the list of coke producers. The production of coke, however, has increased at a greater proportionate rate in the South than it has done in the North; of the entire quantity of this material

manufactured in the United States in 1880, the Southern States produced only 11 per cent, but by 1890, their share had risen to 22 per cent, and by 1898 to 29 per cent. In the interval of eighteen years between 1880 and 1898, the total production of coke in the whole country had grown to five times its original volume (3,338,300 to 16,047,209 short tons), while, in the same interval, the total production in the Southern States had grown to more than twelve times, or from 373,982 to 4,619,688 short tons.

The total production, in 1900, of Alabama, Georgia, Kentucky, Tennessee, Virginia, and West Virginia was equal to 5,799,384 tons, an increase in quantity over the output of all the Southern States in 1898 that amounted to 1,179,696 tons. As these are the principal coke-producing States of the South, it will be interesting to compare the volume of manufacture in each one in the year first named.

The output of West Virginia was 2,358,499 tons, the largest quantity of coke manufactured during that year in any single Southern commonwealth; in 1900, the volume of production in this State was three times as large as it had been in 1880. The most important coking district in the United States, after the Connellsville in Pennsylvania, is the Pocahontas Flat Top region in West Virginia; in the interval between 1886 and 1900, the output of this great field increased from 658 to 1,208,838 short tons. There were, in 1900, 10,249 ovens in operation in the State, and it was second only to Pennsylvania in the production of coke.

Alabama, of the Southern States, is second only to West Virginia in the quantity of coke which it produces. In one year, 1900, its output of 2,110,837 tons represented an increase of as much as 18 per cent in volume as compared with the output during the previous twelve months; this was the largest amount ever manufactured during a single year in the history of the industry in this commonwealth, and was directly attributable to the extraordinary demand for coke in the furnaces around Birmingham, which was so great that the supply, in spite of every exertion, could not

keep pace with it. In 1900 alone, one thousand new ovens were added to the number already in operation, and the building of nearly seven hundred more was begun. As a result of this great increase in the facilities for making coke, the volume of production in this year was thirty-four times larger than it had been in 1880.

In Virginia, the increase in the manufacture of coke during 1900, as compared with that during 1899, was not so remarkable as the increase in Alabama during the same year; it was in fact only about 10 per cent, the total being 685,156 tons; but the number of ovens during this year rose from 1,588 to 2,331. About 300 additional ovens were, at the end of 1900, in the course of erection. Before the close of this year the output of coke had grown to be twenty-seven times greater than it had been at the beginning of 1883. In the interval between 1890 and 1900, however, it had increased in volume only four times.

The increase in the production of coke in Tennessee during 1900, when the total was 475,432 tons, was about 9 per cent greater than it had been during 1899; the output for 1900, however, was only four times larger than that for 1880; and barely one-fourth larger than that for 1890. In 1900, there were about 2,107 ovens in operation in the State.

In Kentucky the volume of production, 95,532 tons, in 1900 was seven times larger than it had been in 1890, and twenty-two times larger than in 1880. The estimates for Georgia during the same years were not so favorable; as compared with the amount manufactured in 1890, the amount manufactured in 1900 (73,928 tons) showed a falling off equal to about two-thirds. The tonnage of 1900, however, was double that of 1880; during this year also the tonnage was 45 per cent greater than it had been in 1899.

The rise in the value of the output of these six States in 1900, as compared with the value of their output in 1899, was even more remarkable than the growth in tonnage during the same period. In West Virginia, the increase was

about 36.4 per cent; in Alabama, about 55 per cent; in Virginia, about 35 per cent; in Tennessee, about 50 per cent; and in Georgia, about 90 per cent.

There was a great increase in value between 1896 and 1900, viz., from $6,464,001 to $13,556,328; the larger figures for the latter year are due, not only to the higher prices of coke prevailing in that year, but also to the greater amount produced.

It is only of late years that the building of ships has become an important industry in the Southern States. As we have seen, no part of the Union has been endowed by nature with a greater variety of the finest timber than these States; and the failure during the existence of the slave system to turn the presence of this timber to the fullest account in the highest branches of shipbuilding was of a piece with the partial failure to use the numerous other resources of the South for the purposes of general manufacture. The great shipyard at Newport News, Virginia, is not only one of the largest in the United States, but also one of the largest in the world. Twenty-five years ago the site of that city was an ordinary tidewater plantation; it has now become the seat of a population of twenty-five thousand. This rapid growth is due to the establishment at this point of a shipyard at a cost of many million dollars. The moving spirit in the enterprise was Collis P. Huntingdon, who perceived the extraordinary advantages offered by the situation, and, with characteristic energy and determination, made the most of them. It was not until 1890 that the great shipyard and drydock company which he formed and controlled began to construct vessels; but before the first ten years had gone by, it had finished and delivered thirty-two, the majority of which had been built for companies or private persons; but this number also included three gunboats and three first-class battleships for the national government. The new drydock, which was completed in 1902, has a depth of 30 feet, a width of 162, and a length of 827. It is calculated that two battleships can find ample room in this dock at the

same time, and that it will with ease accommodate the largest vessel afloat. It is especially adapted to the performance of repair work. The docks are situated in a yard covering 120 acres, while the machine shops alone spread over 10 acres. There are six piers. About seven thousand persons are employed in the various departments about the works. The entire plant represents an investment of $12,000,000, and in some years it has contracts requiring an outlay of $30,000,000 to fill.

The two largest vessels that have been constructed in the United States were launched from these great yards in 1901. They were the *Liberia* and *Korea*, two ships of 18,400 tons displacement built for the Pacific Mail Steamship Company. In 1902 the battleship *Illinois* was completed here; and at the present writing the battleships *Virginia* and *Missouri*, the cruisers *West Virginia*, *Maryland*, and *Charleston*, are in course of construction, or have been recently finished. Among the other battleships built here were the *Alabama* and *Kearsarge*, two great vessels which, in their names, recall two of the most famous ships that have played a part in American naval history. During the Spanish-American conflict many steam vessels were converted in the same yards into auxiliary cruisers, which were of conspicuous use in the war.

Another shipyard of importance is the one belonging to the Maryland Steel Company. This plant, which represents a large outlay of capital, and is thoroughly equipped with all the most highly improved appliances, is situated in the city of Baltimore.

A third shipyard is the one belonging to the Wm. R. Trigg Company, situated at Richmond, Virginia. Both these latter yards, like the one at Newport News, were erected in the course of recent years.

In 1900, eight vessels, with a total tonnage of 13,213, were built by the Maryland Steel Company in their shipyard at Baltimore. The tonnage of the seven vessels constructed at Newport News, during the same year, amounted

to 28,202, while the four vessels built there in 1902 had a tonnage of 25,119. At Baltimore, only one vessel was constructed during this year; this had a tonnage of 144. In 1902, one vessel only was launched in the Richmond yard; its tonnage did not exceed 635. The Richmond shipyard is especially equipped for building torpedo boats and destroyers. One of the largest floating docks in the country is at New Orleans.

Far more important than the quantity of timber consumed in Southern shipbuilding is the quantity that is converted by the Southern planing mills into the various articles for which wood is especially adapted.

We find that in the course of the twenty years between 1880 and 1900, the number of wood-working establishments in the Southern States increased from 236 to 910; the capital invested in this form, from $3,235,368 to $17,192,308; the wage earners employed in carrying them on, from 3,796 to 14,226; the value of their products, from $6,794,583 to $28,938,762. In other words, the number of establishments and operatives, the amount of capital, and the value of the products, had, during this interval, nearly quintupled.

Great in volume as the products of the Southern planing mills were in 1900, the value of these products fell very much below what the value of the timber and lumber industry appeared to call for; thus the value of the output of the latter in that year was $188,114,524, while the value of the output of the planing mills was only $28,938,762, not one-sixth of the former. Nor has the output of the Southern planing mills grown in proportion to that of the Southern saw mills.

The day must arrive when a far greater proportion of the output of the Southern saw mills will pass through the Southern planing mills than it does at present; when this shall be the case, the Southern States will derive that additional profit from their lumber, by manufacturing it into a great variety of articles, which they now derive from their



Capitol Park, with Capitol and new City Hall, Richmond, Virginia.

CHINESE LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA

raw cotton by passing it through the spindle and loom of the Southern factory. There is not the same field, it is true, for wood-working establishments that there is for cotton and iron mills, because the demand for woodwork is apt to be more local, and, therefore, more dependent upon the prosperity of the South itself; nevertheless, there is more room in the Southern States for such establishments than is occupied at present.

In at least one branch of Southern woodwork, the market is as wide as the United States itself; this branch is the manufacture of furniture. The Southern States, by the variety and fineness of their timber, are in a most advantageous position to carry on this industry on a great scale, but, until recent years, it was practically neglected. Since 1890, however, there has been a successful attempt to establish it in at least one commonwealth. In 1890, there were only six small factories in North Carolina engaged in this manufacture; their working capital was computed at $125,000, and the value of their annual output did not exceed $159,000. By 1900, these six factories had grown in number to forty-four; instead of the 152 wage earners employed in the industry, in 1890, there were now 1,759, and the value of the annual products had risen to $1,547,305. The centre of the manufacture of furniture in the State is High Point, a town which is fast acquiring a reputation in this branch of industry such as has long been enjoyed by Grand Rapids in Michigan.

Atlanta also possesses a large number of well equipped establishments for the manufacture of furniture. In 1900, the value of the output of the factories in this city alone approximated one million and a half dollars. By 1890, over a million dollars had been permanently invested in the industry throughout Georgia, and since that time, the amount of capital so employed has greatly increased. As far back as 1890, the value of the entire product of the State equalled about $1,633,813, and the output in the interval since then, has grown very much.

In all the principal cities of the Southern States at the present time numerous furniture making establishments are found, but so far the large majority of these factories have been content to supply the local demand. There is good reason for expecting that the example which has been set at High Point will, in time, be followed to the same extent in all other parts of the South where there is an equal abundance of timber adapted to the manufacture of the finest and most durable kinds of furniture.

We have already dwelt upon the development that has been going on of late years in every branch of the South's resources in natural clays. As showing to what extent the products of the Southern clay beds are being turned to profitable account in manufacture, it may be stated that, at the end of 1900 there were in the Southern States 1,740 brick and tile works and 242 potteries. In one year alone, 1901, ten new potteries and 173 factories for the making of tile and sewer pipe and every variety of common and fine brick were added to the number already in operation. The new potteries increased the value of the annual output in that branch of industry to the extent of about $500,000, while the other new plants enlarged the South's capacity in the production of brick by a round 3,000,000 bricks a year. The number of clay-working establishments in the Southern States in 1901 was 2,740, of which 155 were put into operation during that year.

There is one branch of manufacture in which the highest degree of excellence was reached in the Southern States long before the slavery system was destroyed; this is the manufacture of tobacco, which has continued to grow in importance in these States with every year that has passed since the close of the War. It is the one form of manufacture with which, in many branches, negro labor has long been identified.

The three Southern States carrying on the manufacture of tobacco on the most important scale are Virginia, North Carolina, and Kentucky, within whose boundaries the

tobacco leaf is produced in the largest quantities. In Virginia, this department of manufacture is the most profitable of all those in which its people are interested, but in the course of the last ten years there has been a slight shrinking in the amount of capital invested in the industry as a whole, a slight falling off in the number of operatives engaged in it, and a slight decline in the value of the products. In 1890, the establishments numbered 296; in 1900, 212; in the same interval the capital diminished from $10,536,498 to $8,963,213. The number of employés fell from 13,658 in 1890 to 11,815 in 1900; and the wage list dwindled in the same interval from $2,749,467 to $2,122,360. The value of the products also declined from $22,020,298 to $21,278,266. The only increase in value has been in the case of cigars and cigarettes; these brought in about a million dollars more in 1900 than they had done in 1890, although the number of factories engaged in this branch of the manufacture of tobacco, as well as the amount of capital invested in it, had diminished to a notable degree.

There are no statistics obtainable showing the value of North Carolina's output of cigarettes—a very large and important business. In the other branches of tobacco manufacture, the State has advanced very remarkably in the course of the last ten years. In 1890, $3,370,267 was invested in the production of chewing, loose smoking tobacco, and snuff, and the entire output of North Carolina was valued at $4,783,484; by 1900, the amount of capital had increased to $6,874,908, and the value of the output to $13,620,816. Among the largest tobacco factories in the world are several of those situated at Durham; and their brands enjoy an international reputation.

The manufacture of tobacco has expanded at an equally fast rate in Kentucky in recent years, until it is now the most important industry in the State. In 1890 the number of establishments did not exceed 144; by 1900 they had grown to 180. In the same interval the amount of capital invested in the industry increased from $4,890,851 to

$9,451,725; the number of operatives, from 5,435 to 6,838; the value of the output, from $11,321,375 to $21,922,111. In this State the most extraordinary advance has been in the manufacture of chewing and loose smoking tobacco and snuff; the product of this department in 1900 was valued at $14,948,192, as compared with a valuation of $6,788,586 in 1890.

In the course of the last ten years, Florida has become an important centre for the manufacture of cigars and cigarettes. Between 1890 and 1900, the number of establishments engaged in this industry grew from 86 to 128, and the capital employed, from $1,686,396 to $5,349,907, while the number of operatives increased from 5,273 to 6,461, and the value of the output, from $8,123,220 to $10,891,286. A large proportion of the tobacco consumed in manufacture in Florida is imported from Cuba, but a very considerable proportion is derived from the soil of the State itself, where the Cuban filler and the Sumatra wrapper leaf are now, as we have already stated, grown with marked success.

Large quantities of chewing and smoking tobacco, snuff, cigars, and cigarettes are also made in Maryland. The number of establishments engaged in this branch of industry there and the amount of capital invested in it have slightly declined since 1890; on the other hand, the number of operatives employed and the value of the output have greatly increased. In 1890 the value of the different kinds of tobacco manufactured in the State was about $6,024,591; at the end of ten years their value had grown to $9,896,928.

One of the most conspicuous results of the formation of the great corporations which now control the manufacture of tobacco in nearly every branch of the industry is the rapidity with which the field for the sale of the different brands of Southern chewing and smoking tobacco has been widened. This has been especially notable in the case of the brands of the American Tobacco Company, which are now distributed in all parts of the civilized world. The

vast sums of money at the disposal of this trust have enabled it to employ an army of agents to press its various products upon the attention of smokers in all lands; new markets for Southern tobaccos have been thus created; and the fame of these tobaccos has been carried from one end of the earth to the other.

Among the industries of the South of considerable relative importance is that of the manufacture of distilled liquors. Of the 967 distilleries in operation in the United States in 1900, 699 were located in the Southern States, including Maryland. Several of these States show a considerable increase in the number of establishments during the decade 1890–1900, notably North Carolina, Virginia, Kentucky, and Maryland. In the first named the increase was from 55 to 250, but the numerical gain is important rather as an indication of local diffusion than as affecting the volume of the distillery product. In Kentucky, likewise, the industry is widely diffused, there being 177 establishments in operation in 1900, the product of which was valued at $9,786,527. The aggregate capital employed in this industry in the Southern States in 1900 was $16,281,665, or one-half of the total so employed in the United States, while the value of the product was $13,980,650, or about one-seventh of the total value of the distillery product of the country.

CHAPTER XVI

GROWTH OF SOUTHERN CITIES

THE extraordinary advance in every branch of manufacture in the Southern States of late years signifies in itself alone a notable expansion in the urban population of these States, for, with few exceptions, the Southern manufactures, like the manufactures of all other countries, have their principal seat in towns. As we have already pointed out, practically the entire number of operatives in the Southern cotton factories are drawn from the rural districts; under this influence, there is created a stream of inhabitants, which, in flowing uninterruptedly into the cities, makes a continuous addition to the populations of these centres from without, altogether apart from the additions to the same populations from within by natural growth.

This flow of population from the country to the towns is not confined to those persons who are seeking employment in the cotton factories. It extends to all who are anxious to obtain manual work in the various other branches of manufacture which are flourishing under the new system,—the iron and steel plants, the foundries and machine shops, the cotton oil mills, the furniture factories, the planing mills, the tobacco factories and warehouses.

Hither, too, come all those persons in the rural communities who are anxious to push their fortunes in business or in the professions,—the clerks in the stores, the young lawyers and physicians, the electrical engineers. Formerly,

as we have seen, the younger members of the rural gentry either remained in the country as planters and farmers, just as their fathers had done before them, or they emigrated to the newly opened regions in the West or the Southwest. With the exception of a few young men who adopted the learned pursuits, there was no disposition among the members of the old Southern rural gentry to move to town and establish their homes there; on the contrary, there was a disposition among the members of the highest social class in the cities to leave town and settle in the country. So unprofitable to the individual planter, as a rule, is agriculture under the new system, unless carried on at little outlay over a very small area of ground, that it practically furnishes no employment except to men who work with their hands. The last representatives of the old rural gentry have been driven out of the country by the pressure of economic forces which they have had no wish to breast now that the social charm of the local rural life has passed away. They have gone to the towns in search of fortune, amidst a social environment more agreeable to the inherited feelings and tastes of their class. It is from this class, which gave the society of the Southern plantations its extraordinary prestige, that the leading business men of the Southern cities under the new system have been principally drawn; and it is due largely to the migration of this class thither that these cities have grown so steadily. When one of the old families establishes its home in the nearest town, there it remains; no influence exists, as formerly, to draw it back to its ancestral home in the country; the children become identified with the city, and all permanent connection with the country is forever abandoned.

The increase in the number of Southern railways, their ramification throughout every part of the Southern States, and the direct and rapid means of communication which they furnish with the rest of the Union, have fostered the growth of Southern cities to an extraordinary degree by opening up new markets for their various manufactures.

The Southern manufacturer is no longer dependent upon the South for the sale of his products; he is now in a position to compete with everyone engaged in his branch of business in the different divisions of the United States. As his own factory has thriven and expanded because the railway facilities afforded him have enabled him to reach with ease all parts of the world, so the town or city in which his factory is situated has received an impulse toward greater wealth and population from his own increased prosperity, and the larger operations in his business which that prosperity has permitted and justified.

The advance of the Southern cities in the course of the last twenty years has been on a sound footing; it is only in a very few that anything resembling the mushroom growth at one time so common in the West, and so often followed by such disastrous results, has been seen. The expansion in population has been almost invariably due to some tendency that has continued to operate down to the present day—a natural impulse that is healthy as well as lasting.

In the fourteen Southern States, beginning with Maryland in the North and ending with Texas in the Southwest, there were, by the census of 1900, about fifty-three towns with a population numbering from four to eight thousand; eighty-eight with a population that ran over eight thousand; and twenty-three with a population that ran over thirty thousand. The same census shows that there are eight cities in the South with a population above fifty thousand, and four with a population above one hundred thousand. There is, however, only one Southern city, the population of which exceeds half a million.

The most important city in the Southern States from the point of view of both population and wealth is Baltimore. This great centre has derived its growth as much from its Western connections as from its Southern; the construction of the Baltimore and Ohio Railway gave it a direct highway to the most fertile parts of the Western States, and the enormous grain trade which it secured by this means has

been one of the soundest and broadest supports of the prosperity which it has long enjoyed. The advance of the city has been very much promoted by the rapid progress in recent years of the South, with which division of country it has always had very close trade relations. No single community has contributed more financially to the upbuilding of the Southern States in every branch of business than Baltimore. This has been especially notable in the departments of steam and electric railways, cotton mills, and lumbering; millions of dollars have been furnished by Baltimore capitalists for these and the like purposes; and thousands of business enterprises have by means of this aid, become highly successful, with incalculable benefit to the communities with which they are associated.

The aggregate capital of the trust and bonding companies of Baltimore is computed to be very near to forty millions of dollars, while their deposits amount to about fifteen millions. The capital and surplus of the national banks are equal to about sixteen millions of dollars, and their deposits to about fifty millions. The capital and surplus of the State banks are estimated at three millions of dollars, with deposits that also come to about three millions, while the deposits of the eight leading savings banks are in the aggregate about fifty millions.

These enormous amounts of capital and deposits belonging to the leading financial institutions of Baltimore only represent a part of the financial resources of its citizens. The greatness of these resources, as well as the firmness and energy of the people, have recently been shown in the most striking manner by the rapidity with which the business section destroyed in the conflagration of 1904 has been rebuilt, and the completeness with which confidence in the business future of the city has been restored.

Through its great university, the Johns Hopkins, Baltimore has exercised a far-reaching influence on the course of learning in the South, and has set an example, especially in the line of historical investigation, which has done much

to promote a spirit of greater thoroughness in the search and use of knowledge. Its graduates occupy many important chairs in Southern colleges and have thus served to extend the power and influence of this great institution.

The medical schools of Baltimore have grown steadily in importance in the course of the last twenty years, and are now among the most admirable in the United States. The Johns Hopkins Hospital has few equals in America.

Passing from Baltimore to the towns that are perhaps more distinctively Southern, the first in importance, from some points of view, is Richmond, the principal centre of population in Virginia. By the census of 1900, this city contained 85,000 inhabitants, but if Manchester and other suburbs be taken as parts of it, the number would reach 125,000. At the close of the war its population did not exceed 45,000. Few other towns in the South suffered so much from that conflict; at the evacuation the greater portion of its business quarter was laid in ashes; its principal manufacturing plants, its largest warehouses, and its chief wholesale stores were all consumed. The revolution through which the city, along with the rest of the South, passed, destroyed all its property in slaves, made local stocks and bonds worthless paper, and like a blasting wind from an African sand desert, dried up for a time the financial resources of its people. But the dark cloud of ruin and despair soon began to lift, and thirty-five years after the frightful conflagration which swept over the town, Richmond had become one of the most prosperous centres of its size in the United States. This was due primarily to the growth of its manufacturing interests, which from the beginning have been especially remarkable for their variety. The operations in several departments of manufacture are carried on in a very large way; the Tredegar Iron Works, which produces railway spikes, horseshoes, and castings, the Old Dominion Iron and Nail Works, and the Richmond Locomotive Works are among the most important iron establishments in the United States, while the Richmond

Cedar Works, which covers an area of twelve acres and employs about 1,200 men, is the most extensive wood-working plant in the world. Reference has already been made to the William R. Trigg shipyard. The water power supplied by the falls in James River at Richmond has, of late years, been turned to account in the creation of electric force for use in the different local factories. It is estimated that the electric plant which has been recently built will furnish 14,000 horse power.

Among the most important industries of the city are the various tobacco manufactures. Perhaps the most celebrated of these are the cigarettes produced by the American Tobacco Company, which are now distributed throughout the civilized world. The various brands of chewing tobacco made in Richmond have a reputation hardly less extended.

In addition to manufactures in iron, wood, and tobacco, Richmond produces large quantities of agricultural fertilizers, meat juice, and paper.

In the interval between 1890 and 1900, the number of manufacturing establishments in the city fell off from 966 to 763, but the amount of capital invested in this form rose from $16,785,242 to $20,848,620 and the value of the output from $27,792,672 to $28,900,616.

There are now fifty-one miles of street railway, the cars of which are propelled by electric power. The city has become an important railway centre, possessing several of the finest passenger station buildings in the Southern States. The systems radiating from this point own 15,824 miles of trackage, and include the Chesapeake and Ohio, the Atlantic Coast Line, the Seaboard Air Line, and the Southern Railway. Owing to the extraordinary facilities for transportation in every direction which these great corporations furnish, Richmond has grown to be one of the chief points in the South for the wholesale distribution of merchandise, a fact which has contributed enormously to the prosperity of the city. In December, 1901, the deposits in its banks amounted to $18,199,419.99, while between January 1st

and December 1st of the same year the bank clearings reached the total of $181,332,345.39. During the eight years ending in 1901 its exchanges with the various clearing houses of the United States rose from $114,957,211 to $198,091,536.

The largest publishing firm in the South has its plant in Richmond. There are several notable institutions of learning in the city, among which may be mentioned Richmond College, the Medical College of Virginia, the Richmond Theological Seminary, and Hartshorne Memorial College. Over ten thousand scholars attend the public schools. The new Williams Memorial Hospital is one of the noblest establishments of its kind in the South.

Several imposing monuments have been erected in Richmond of late years; the most remarkable are the equestrian statue of General Lee, the single figure of the Howitzer monument, and the monument to the private soldiers and sailors, which overlooks from Church Hill the beautiful valley of the James.

Norfolk, the second city of Virginia in the point of population, has about 50,000 inhabitants. The number has more than doubled since 1880. In a radius of four miles from the City Hall, it is computed that there now reside 100,000 people. This steady expansion in population is largely due to the growth of local manufactures; in the interval between 1890 and 1900, the number of such establishments rose from 374 to 445; the amount of capital thus invested from $3,417,454 to $6,425,099; and the value of the product from $5,100,408 to $9,397,355. In other words, in this short interval, the number of establishments increased 19 per cent, the volume of capital 88 per cent, and the value of the products 84.2—a showing hardly equalled in the same length of time by any other town in the South. Seventeen railways have now their terminals on Norfolk harbor, and their piers are among the largest to be found on the Atlantic coast. Twenty-six steamship lines connect the city with Europe, the West

Indies, and the ports along the Atlantic seaboard. Norfolk is now the largest coaling station in the world. It has been especially benefited by the enormous development in its vicinity of every branch of the lumber business, and also of every department of trucking. In 1901, the capital of the Norfolk banks amounted to $1,420,000, with a surplus fund of $936,650, and the deposits to $56,409,291. The paper passing through the clearing house increased in the interval between 1890 and 1900, from $48,210,486 to $78,243,520. Norfolk is the fourth cotton port in the United States; in 1901, it is computed that 195,000 cotton bales were shipped from its wharves. It is the largest peanut market in America, and from this point the nuts are distributed at the rate of about 2,500,000 bushels a year. There are twenty-three oyster packing establishments in the city, which together handle over 3,500,000 bushels of oysters annually.

Among the smaller towns of Virginia, the most active in developing special lines of production are Danville, Lynchburg, Roanoke, and Newport News. Danville and Lynchburg enjoy a high reputation in the departments of cotton and tobacco manufacture, Roanoke in that of machinery, and Newport News in that of shipbuilding. Sixty-six per cent of the annual output of the manufactures of Virginia is made in twenty-three cities and towns of the State; and 51,552 operatives of the 72,702, or 70.9 per cent of the whole number engaged in these manufactures are residents of these centres.

By the census of 1900, Virginia possessed four towns each with a population running over 4,000, but falling under 8,000. There were nine cities in the State with a population exceeding 8,000, namely, Manchester, which contained 9,715 people, Danville 16,520, Portsmouth 17,427, Lynchburg 18,891, Newport News 19,635, Roanoke 21,495, Petersburg 21,816, Norfolk 46,624, and Richmond 85,050. In the interval between 1890 and 1900, the population of Norfolk increased 33.7 per cent, while

that of Richmond increased only 4.05, as against 28 per cent for the interval between 1880 and 1890.

The population of Wheeling, the only city in West Virginia the number of whose inhabitants rises above 25,000, grew in the interval between 1890 and 1900 about 12.6 per cent. There were situated in the State in the latter year four towns containing each a population ranging between 4,000 and 8,000, and four each with a population that exceeded 8,000, namely, Charleston with 11,099 people, Huntingdon with 11,825, Parkersburg with 11,703, and Wheeling with 38,878. Wheeling is the most important city in West Virginia, not only in population, but also in the magnitude of its manufacturing interests. Its manufactured output in 1900, which was equal in value to $16,747,544, as compared with $13,022,589, the value of its output in 1890, formed 22.6 per cent of the total manufactured product of the State. Since 1880 the capital invested in manufactures in this city has nearly trebled, while the value of the output has nearly doubled.

There are six cities in North Carolina containing each a population that exceeds 10,000, namely, Asheville, Charlotte, Greensboro, Raleigh, Wilmington, and Winston. The most important towns in the State in the amount of capital invested in their manufactures are Charlotte, the chief seat of the cotton manufactures, and Winston, the chief seat of the tobacco. Though Durham falls very much behind Winston and Charlotte in capital employed in these special branches of industry, it runs far ahead of them in the total value of its manufactured output, which consists principally of cigarettes and smoking tobaccos. Wilmington, with its population of 20,976, is the largest city in the State, but in the volume and value of its manufactures it is inferior to other towns in North Carolina which contain a smaller number of inhabitants.

North Carolina has always been notable for the absence of large cities within its borders. Unlike what is observed in the other Southern States, the greater proportion of its

manufactures are not found in the chief towns; of the $76,503,894 invested in the State in this form, only about $25,000,000 was in 1900 invested in the fifteen largest centres of population. In consequence of this dispersion of its manufactures, the growth of these centres in the decade between 1890 and 1900 was not very remarkable; during that period Raleigh added only 1,000 to the number of its inhabitants.

South Carolina contains four cities with respectively a population exceeding 10,000, namely, Charleston, Columbia, Greenville, and Spartanburg. Charleston has a population of 55,807. In the course of the interval between 1890 and 1900 it added only 852 to the number of its inhabitants. While its progress between 1890 and 1900 was comparatively slow, its rate of growth in the interval since 1880 has, on the whole, been very notable; thus the amount of capital invested in its manufactures has expanded in this interval from $1,718,300 to $12,473,187, and the value of its manufactured output from $2,732,590 to $9,562,387. The number of its wage earners has, in the same interval, doubled. Of late, the channel of its harbor has been deepened, and now vessels with a draught of twenty-three feet pass in and out with ease. Among the most important of its industries are its rice mills and fertilizer factories. Its wholesale trade annually exceeds $30,000,000. A great exposition was held here in 1902, which showed extraordinary enterprise and energy on the part of the people of the city, and the display was one of the most interesting that has been made in the United States in recent years. Charleston enjoys facilities for rapid communication with other parts of the country in the Atlantic Coast Line, the Plant System, and the Southern Railway, which now controls the South Carolina and Georgia Railroad.

Columbia comes next to Charleston in the size of its population and the value of its manufactures. In 1900 the number of its inhabitants was estimated at 21,108; the


OF THE
UNIVERSITY
OF
CALIFORNIA



Royal Street, Mobile, Alabama.

capital invested in its manufactures, at $5,277,306; and the value of their product, at $4,243,030. Greenville, with a population of 11,860, had $2,858,388 invested in manufactures, while the output of its factories was valued at $2,224,990. About 41 per cent of the capital of South Carolina employed in this branch of industry was in 1900 concentrated in its twelve largest cities, and 39 per cent of the manufactured output of the State was also produced by these urban establishments.

There are four cities in Florida that contain each a population in excess of fifteen thousand, namely, Jacksonville with 28,429 inhabitants, Key West with 17,114, Pensacola with 17,747, and Tampa with 15,839. Tampa has the largest amount of capital invested in manufactures, and the value of the output is nearly double that of any other city in the State. Jacksonville is second in rank in the same department of industry, and Key West third. The combined capital of these three towns employed in manufactures in 1900 amounted to $7,843,504, which was about 22.8 per cent of the capital of the State thus invested, while the value of the combined output was about $13,197,557, or 34.6 per cent of the value of the entire manufactured product of Florida.

Georgia has seven cities which respectively contain a population exceeding 10,000. The four most important are Atlanta, Savannah, Macon, and Augusta.

In the conflagration that followed the occupation of Atlanta by Sherman's army, only 300 houses escaped destruction; thirteen years later (1877) the city had so far recovered from the blow as to become the capital of the State; and since that time it has shown a degree of energy and enterprise unsurpassed in the history of the South. In 1881 it drew to itself the attention of the whole country by a great cotton exposition, which was the first very conspicuous indication of the reviving prosperity of the Southern people; and this exposition was followed by a second in 1895.

Atlanta has now a population that closely approximates 100,000, while the 300 houses which escaped the flames in 1864 have increased to 20,000. The city covers an area of ground equal to about twelve square miles, and it has an assessed valuation of nearly $55,000,000. Its bank clearings now annually aggregate about $111,000,000 as compared with $56,000,000 in 1894. It is one of the principal distributing points in the South, and its wholesale trade amounts to about $45,000,000 a year. Ten lines of railways, coming in from every direction, concentre here, while the street railways extend over one hundred miles of trackage. It is estimated that about 175,000 bales of cotton are annually consumed in the cotton factories situated in the city.

In 1901, the expenditures of Atlanta in support of its public schools amounted to $186,475.50. Its public library, built at a cost of $120,000, the gift of Andrew Carnegie, is one of the most notable structures of its kind in the South. The city contains numerous institutions of learning of a high order for both races. These institutions are peculiarly notable for variety; they embrace schools for instruction in law, medicine, divinity, business, and the different handicrafts, as well as schools for imparting an academic education alone.

The growth of Savannah, the second town of Georgia in population, has not been so great as that of Atlanta, but nevertheless its progress has been remarkable, especially if we consider the entire interval since 1880. During this interval, the number of Savannah's inhabitants has increased from 30,709 to 54,244; its taxable values, which amounted to $17,300,237 in 1880, have more than doubled, while the gross value of its commerce has trebled. In five years (1895–1900) its bank clearings rose from $124,302,142.17 to $245,594,512.45. Nor has the city been slow in introducing improvements that will advance the health and convenience of its people; an extensive new system of drainage has been put down; artesian well water has been

substituted for the water obtainable from the river, and electricity has superseded gas in the lighting of the streets and displaced horse power in the moving of the street cars.

In 1900, the four cities of Atlanta, Savannah, Augusta, and Macon united had $35,894,229 invested in manufactures; and the value of the product of this department of their industries was estimated at $39,749,232. They owned 40 per cent of the capital of the State so employed, and the annual output formed 37.3 per cent of the State's entire output in manufactures. Atlanta led; in 1900 its capital thus invested and the value of the product were nearly double the like capital and product of Augusta, Savannah, and Macon taken together. Over one-half of the output of Georgia in this branch of industry is the output of seventeen of its cities and towns; so fast, indeed, are manufactures springing up in all parts of the State, that Atlanta, Savannah, Augusta, and Macon are declining in the proportion which their manufactured product bears to that of the other centres of population.

There are six towns in Alabama which respectively contain a population of over eight thousand; of these six, three possess respectively a population in excess of thirty thousand, namely, Birmingham with 38,415 inhabitants, Mobile with 38,469, and Montgomery with 30,346. The youngest but the most remarkable of these cities is Birmingham. Though incorporated in 1871, one house alone in 1870 occupied the site of the town, which at that time derived its only importance from the fact that two railways—the Louisville and Nashville, and the Alabama Great Southern—crossed at this point. As the number of furnaces increased, house after house was built, until now the entire valley is a cluster of villages and towns, which practically form one great centre of population. In 1871, Jefferson County, in which Birmingham is situated, numbered only 12,345 inhabitants; in 1900, its population had swelled to 140,000. At the end of 1879, Birmingham possessed only one bank, and the capital of this institution did not exceed $50,000;

on May 1, 1902, the deposits in its numerous banks were equal to about $9,251,820. The bank clearings for 1901 alone amounted to $48,029,007, and the gross volume of business to $88,750,000. There has recently been completed a town hall that cost over $200,000, while, during the year ending July 1, 1902, nearly $3,500,000 was laid out in a great variety of new buildings. In the same year, the assessed valuation of property in Birmingham exceeded $43,000,000. Six important lines of railway now enter the city. In one year alone, 1901, it is computed that their freights obtained in the district were equal to ten millions of dollars, which was about 75 per cent of the total freight receipts of the railroads throughout the State during the same twelve months. The total trackage in the district runs up to 604.45 miles.

In 1900, Birmingham had $7,434,654 invested in manufactures, an increase of 63.3 per cent as compared with the amount so employed in 1890. During the same interval, its manufactured product grew in value from $7,034,248 to $12,581,066, an advance exceeding 78 per cent. Mobile, in 1900, had $3,294,238 and Montgomery $2,930,782 engaged in manufactures, an increase over 1890 in the case of Mobile of 47.3 per cent, and in the case of Montgomery, of 74.0. The value of the manufactured product of Montgomery, during the same interval, advanced 55.6 per cent, and of Mobile 16.3 per cent. Eighteen towns and cities of Alabama in 1900 produced 51.1 per cent of the value of the manufactured output of the State during the course of that year.

There are three cities in Mississippi which respectively contain a population exceeding twelve thousand; these are Natchez, with 12,210 inhabitants; Meridian, with 14,050; and Vicksburg, with 14,834. Of these cities, Meridian and Vicksburg suffered most severely during the War of Secession. Meridian, which was then burned to the ground, has, of late years, grown very rapidly in population; in 1890, its inhabitants were about ten thousand in number,

while ten years later, they had increased to fourteen thousand. In the same length of time, Natchez had added two thousand to its population, but Vicksburg had added to its population only fourteen hundred. Meridian also leads in manufactures; in 1900, this city had $1,923,590 invested in this branch of industry, and its manufactured product was valued at $2,980,217. Vicksburg and Natchez both fell very much behind Meridian in amount of capital employed in manufactures, and in value of manufactured output. Of the entire output of manufactures in the State at large, about 28.3 per cent in value was, in 1900, produced in its eleven principal centres of population.

The four largest cities in Tennessee are Memphis, with a population of 102,320, Nashville with a population of 80,865, Chattanooga, which contains 30,154 people, and Knoxville, which contains 32,637. Of these cities, Memphis has had, in recent years, the most remarkable growth; in 1890, its inhabitants numbered 64,494; ten years later, the population had expanded to 102,320. During the same interval, Knoxville increased about 10,000 and Nashville about 4,700. Between 1880 and 1890, the rate of growth for these three cities was very much higher. During that interval also Chattanooga advanced 125.7 per cent in population.

Memphis is one of the principal distributing points in the Mississippi valley; and it is also one of the largest cotton and lumber markets in the United States. In 1901, its bank clearings reached a total of $154,482,939.75, which represented an increase of seven millions in the course of twelve months. Between 1890 and 1900, the amount of capital invested in its various branches of manufactures expanded from $9,357,821 to $11,179,024, while the value of its manufactured output rose from $13,244,538 to $17,848,530. Nashville surpassed Memphis, during the same interval, in the growth of its capital thus employed and its manufactured output alike; the capital advanced from $9,904,295 to $13,150,137, and the value of the

manufactured product from $14,590,823 to $18,367,323. In 1900, the manufactured product of Knoxville was valued at $6,943,595, and of Chattanooga at $11,628,800. Of the manufactured output of the entire State, 64.1 per cent was, in 1900, made in its eighteen leading cities.

There are nine cities in Kentucky which respectively contain over 9,000 people. The principal are Louisville with 204,731 inhabitants, Covington with 42,938, Newport with 28,301, and Lexington with 26,369. In the interval between 1890 and 1900, the population of Louisville advanced 27.1 per cent, and that of Lexington 22.3 per cent, while the growth of the population of Newport and Covington was at a somewhat slower rate. Louisville owns one-half of the capital invested in manufactures in Kentucky, and the value of its manufactured product is 51.3 per cent of the value of the State's entire manufactured output, which in 1900 was computed at $154,605,115. In the interval between 1890 and 1900, the value of the manufactured product of Louisville rose from $54,515,226 to $79,286,390, which represented an increase of 45.4 per cent. About 75 per cent of the manufactured output of Kentucky as measured by value is produced in its eighteen largest centres of population.

Louisiana possesses but three cities that respectively contain more than 10,000 people, namely, New Orleans with 287,114 inhabitants, Shreveport with 16,103, and Baton Rouge with 11,269. In the interval between 1890 and 1900, the population of New Orleans grew more rapidly than it has done since 1860; in that length of time, its expansion was equal to about 18.6 per cent, as compared with 12 per cent for the interval between 1880 and 1890. One reason for this large addition to the number of its inhabitants will be found in the increased volume of its exports, to which we will refer later on. Few towns in the South have made as substantial progress as New Orleans since the end of the period of Reconstruction. The deepening of the channel at the mouth of Mississippi River has

raised up for this city all the advantages of a great seaport, and with the impulse to every branch of its industries which has thus been given, it has attained to the highest prosperity in its history. Of the $113,084,294 invested in manufactures in the State, $46,080,061 was, in 1900, invested in manufactures in New Orleans. The value of the manufactured product of the city formed in the same year one-half of the value of the State's entire manufactured output.

There are sixteen towns in Texas which respectively contain more than 8,000 people; the most populous are Dallas with 42,638 inhabitants, Fort Worth with 26,688, Galveston with 37,789, Houston with 44,633, and San Antonio with 53,321. With the exception of Fort Worth and Dallas, all these cities expanded, between 1890 and 1900, at an extraordinary rate, in sympathy with the notable growth of population throughout the State; the number of people in Galveston, for instance, increased, during this interval, at least 29.9 per cent; the number in Houston, 62 per cent; and the number in San Antonio, 41.5 per cent. The addition to the population of Dallas and Fort Worth, on the other hand, was much more remarkable between 1880 and 1890 than between 1890 and 1900; in Dallas, the percentage of growth was as high as 267.5, and in Fort Worth as 246.3; but, between 1890 and 1900, the percentage fell to 12.0 and 15.7 respectively. In Galveston and Houston, also, the rate of growth was somewhat more rapid between 1880 and 1890 than between 1890 and 1900. In these five cities, the capital invested in manufactures increased, between 1890 and 1900, from $20,080,621 to $26,846,452; and the value of their total manufactured product from $34,061,949 to $39,293,035. Over 48 per cent of the output of Texas in manufactures was made in these five centres, while nearly 43 per cent of the entire capital of the State invested in this branch of industry was invested in plants that were situated in this group of cities.

Arkansas contains four towns each with a population in excess of 9,000; the largest is Little Rock, which numbers

38,307 inhabitants, while Fort Smith and Pine Bluff follow with 11,000, respectively.

It will be found that only four of the important Southern cities doubled their population during the interval between 1880 and 1900. While the growth of the Southern towns in number of inhabitants in the course of the last twenty years has not, on the whole, been phenomenal, that growth has been attended by a marked improvement in every branch of urban interests. A notable advance, for instance, has been made in recent years in the architectural character of the new public buildings erected; many of the new City and Chamber of Commerce Halls are among the finest in the United States, and this is also true of all the new Federal and State buildings. There has been an extraordinary improvement, too, in the architectural character of the hotels, and some of the handsomest are found in the smaller centres. The principal residential streets in such cities as Richmond, Savannah, Atlanta, and Birmingham compare very favorably with similar streets in towns of equal importance in the Northern States. Provision has been made everywhere for an abundant supply of pure water, and large sums have also been spent in the purchase and opening up of land for public parks; Memphis, for instance, has invested, of late years, over $250,000 in this manner. The expenditures for sewerage have been on an even greater scale; thus, New Orleans is now carrying into effect a most elaborate system of drainage, which will cost not less than $10,000,000. The small as well as the large towns are lighted with electricity, and the same means of illumination has been in great measure substituted for gas in private houses. Electricity has also displaced horse power on the street railways. In many of the Southern cities, new libraries, containing many thousand volumes, have been established, while the scope and usefulness of the schools have been greatly enlarged.

The conservative yet progressive manner in which the affairs of the Southern cities have been administered is shown

by the high credit which these cities enjoy in the financial world. The limit to which each can incur debt is carefully fixed by law. Southern municipal bonds find ready takers, both in the Southern cities themselves and among Northern investors, and, with few exceptions, they are rated very much above par.

The Southern cities have shown a noteworthy enterprise in a special direction which further demonstrates that the South has thoroughly recognized the economic unity of the nation. We refer to expositions, of which many have been held in recent years. While cotton has been the chief factor in the promotion of such enterprises, they have familiarized the commercial world with the great and varied natural resources and industrial opportunities of the South. The principal of these were the World's Industrial Cotton Culturist Exposition at New Orleans in 1883–1884; the Cotton States and Industrial Exposition at Atlanta in 1895; the Tennessee Centennial Exposition at Nashville in 1897; and the South Carolina Inter-State and West Indian Exposition at Charleston in 1901–1902.

CHAPTER XVII

SOUTHERN EXPORTS AND IMPORTS

In the previous chapter, we dwelt incidentally upon the measure which each of the largest towns of the South produces of the general manufactured output of the Southern States. A very important element of prosperity possessed by the main centres of population along the Southern coast is the great amount of merchandise which they export; the cities where the volume of goods thus sent out reaches the largest proportions are Baltimore, Newport News, Norfolk, Wilmington, Charleston, Savannah, Mobile, Brunswick, Pensacola, New Orleans, and Galveston. The total value of such exports was only $261,214,604 in 1880, but in 1901 it amounted to $510,631,268. In the latter year the figures for New Orleans show a proportion to the whole Southern export of 28 per cent, those for Baltimore of over 20 per cent, those for Galveston of nearly the same, for Savannah about 9 per cent, and for Newport News about 6 per cent.

In the interval between 1880 and 1901, the exports of the Southern States grew 95.50 per cent in volume, while the increase for the remainder of the United States amounted to only 64.93 per cent. The exported merchandise of the South now forms 34.32 per cent of the entire quantity shipped out of the whole country. During the interval between 1880 and 1901, Norfolk and Charleston were the only two important cities on the Southern

coast the volume of whose exports shrank to a marked degree.

The expansion in the export business of the South is further shown by the tonnage of vessels engaged in the foreign trade that cleared from the Southern ports; in 1880 this amounted to 3,579,930, and in 1901 to 8,089,070.

It would appear that the drift of the Southern export trade is turning more and more rapidly each decade toward the cities situated on the Gulf. Of late years, the export trade of these centres has grown to double the proportions of the export trade of the centres situated on the Atlantic seaboard; the South Atlantic ports have increased theirs to the extent of $81,500,000, while that of the Gulf ports has been increased to the extent of $168,000,000; in other words, the growth of the one has been 56.8 per cent, and that of the other 142.7. In twenty years, the proportion in which the cities on the Gulf share in the export trade of the United States—one of the most enormous in the world—has advanced from 13.8 per cent to 19.2.

The causes of this growth in the export trade of the cities on the Gulf are not far to seek. As the production of cereals and meats for the European market increased in the Mississippi valley, there sprang up there a desire to reach the seaboard in the quickest and least expensive way. The Gulf was much closer at hand than the north, middle, and south Atlantic, whether the lakes or the great overland routes were followed in getting to the coast. As soon as it was seen that the straightest road to the ocean could also be made the cheapest, an enormous amount of capital was invested in building railways to the Gulf, and it was not long before Galveston, New Orleans, and Mobile had the amplest facilities for transporting to their wharves for transshipment abroad the various products of the central West. The exports from these cities have also been swelled prodigiously by the vast increase in the production in the South itself of tobacco, cotton, cottonseed oil, cake and meal, petroleum, phosphates, fertilizers, pig iron, lumber, and the like.

Let us first consider the quantity of cotton shipped from the Southern ports in the course of the interval between 1880 and 1901. In the former year the volume was 1,422,355,297, and in 1901, 2,726,597,018 pounds, an increase during the interval of 1,304,241,701. The quantity, therefore, almost doubled in the course of twenty years. The amount shipped in 1901 represented 81.80 per cent of the total cotton exports of the United States for that year. In 1880 the percentage was 78.06.

The increase during the last ten years in the quantity of corn exported through the cities on the Southern seaboard is even more significant, as the bulk of the maize crop is produced in the Western, and not in the Southern, States. The figures for such exports are 39,363,601 bushels for 1890, and 73,836,452 for 1901.

From the wharves of New Orleans, Baltimore, Newport News, Norfolk, and Mobile, there was shipped almost one-half of the entire quantity of corn sent abroad from the United States in 1901. Nearly 30 per cent of the shipments of wheat from this country to foreign lands, during the same year, were made from the ports on the Southern coast, as compared with 25 per cent twenty-one years before.

The increase in the shipments through Southern ports of the different products of the hog in the interval between 1880 and 1901 was enormous. The amount of lard sent out rose from 32,052,584 pounds in 1880 to 143,438,289 in 1901; in the former year only 8.55 per cent of the total quantity of this article of food exported from the United States was shipped through the cities on the Southern seaboard, while in 1901 28.44 per cent passed through these cities, an increase in two decades of about twenty per cent. The explanation of this increase is to be found in the diversion, in recent years, of the hog products of the West to Southern ports for foreign shipment; thus, in the course of the last decade alone, the quantity of hams passing through these ports rose from 1,748,540 pounds in 1890

to 13,184,616 in 1901; the quantity of bacon, in the same interval, from 12,364,094 to 23,668,323 pounds.

In 1880, 712,866 barrels of flour were shipped through the cities on the Southern seaboard, and by 1901 their number had grown to 7,019,242. The Southern percentage of the total exports of this food stuff from the United States advanced in this interval from 11.85 per cent to 37.63; in other words, from about one-tenth to over one-third. This increase, like that in the quantity of hog products shipped through Southern ports, was chiefly due to the diversion to these ports of the western flour seeking a foreign market. On the other hand, the increase in the quantity of cotton cloth passing through the same ports is chiefly attributable to the growth in the volume of cotton cloth manufactured in the Southern States. In 1880 only 790,703 yards were sent out, but by 1901 the quantity had enlarged to 4,760,167 yards.

The two most important ports in the South are New Orleans and Baltimore. Both draw for their export business very largely on the Western States. This is especially the case with Baltimore, which has derived so much of its prosperity from its western railway connections. This city leads New Orleans in foreign shipments of corn, lard, hams, bacon, and flour, while New Orleans runs ahead of Baltimore in those of wheat and raw cotton.

In all the exports, except those of wheat and cotton, Baltimore leads New Orleans at a very considerable distance, but New Orleans, in the course of the last ten years, has had greater proportionate success than its rival in increasing the volume of every one of its different foreign shipments except wheat. Indeed, the city has shown an extraordinary degree of enterprise in offering every facility for the enlargement of its export business. In 1901, the Board of Commissioners of the port, having assumed control of the public wharves and landings, which had previously been leased to private individuals, promptly adopted rules that made New Orleans as far as practicable a free port; the only fees now

imposed for the use of the wharves are barely sufficient to keep them in repair, so small is the amount demanded. In consequence of this liberal and farsighted policy, the lines of great steamships touching at the city have increased until they now exceed thirty in number; this does not take in the fleet of tramp steamers that come at irregular intervals and carry off to foreign or domestic ports a vast quantity of merchandise of every sort. The volume of these exports is now second only to that of the exports of New York city.

Since 1885, the exports through New Orleans have almost exactly doubled in quantity. The most extraordinary increase in a single year took place in 1901, and was especially remarkable in the case of the exports of cotton, cottonseed cake and meal, cottonseed oil, wheat, flour, oats, horses and mules, and the various articles made of wood.

When it is recalled that, as a great shipping point, the existence of Newport News hardly goes further back than 1885, the progress it has made in less than two decades in enlarging its export trade forms one of the most interesting chapters in the recent history of the Southern States. With hardly one-twentieth of the population of Baltimore, its exports in 1901 were equal in value to one-fourth of that city's during the same year; with about one-eleventh of the population of New Orleans, its exports, in 1901, were equal in value to about one-fourth of those of New Orleans during the same period. The foreign shipments of Baltimore and New Orleans have only doubled in value since 1885, while those of Newport News, in the same interval, have expanded to ten times the original figures. This great increase is chiefly due to the advantages the city enjoys as the terminus on deep water of the Chesapeake and Ohio Railway, one of the most important grain and coal lines uniting the West with the Atlantic coast. This corporation has erected at this point several of the largest grain elevators in the United States, while its series of piers, which were built at a cost of $7,000,000, furnish the amplest

facilities for loading and unloading vessels of all kinds engaged either in the foreign or the coastwise trade.

Newport News is kept in regular communication with domestic and foreign ports by several lines of steamships. The Merchants and Miner's Line dispatches one of the largest boats in the coastwise trade daily to Baltimore and one triweekly to Boston; the Old Dominion, which is constantly adding new freight and passenger vessels to its fleet, has a daily service to New York, while the Clyde Line, which is also fully supplied with excellent boats, has a daily service to Philadelphia. In addition to these lines of steamships plying continuously between Newport News and the principal Northern seaports, Newport News possesses lines that maintain a regular freight service with Germany, the United Kingdom, and other European countries.

Remarkable as has been the development of the export trade of such Southern cities on the Atlantic coast as Newport News in Virginia, and Brunswick in Georgia—two towns which have grown into great importance of late years,—it is not improbable that all the Southern ports on this coast will be prevented from acquiring the amount of business they are rightly entitled to, on account of their position, by competition with such Northern centres on the seaboard as Philadelphia and New York, which are firmly entrenched in the advantages created by their vast wealth and all-powerful trade connections during a long course of years. Newport News, if mere situation were the controlling influence, would to-day be the first port in the United States for shipment to foreign countries of the largest proportion of the products of the north-central West. An enormous share of these products, which now seek the sea at points further north, would come to its wharves but for the manipulations of the great railways that join the Western States with the Atlantic Ocean. Competition is stifled by a common ownership, and natural advantages, which otherwise would govern the export trade, count for nothing in the general management of a system



Residences on South and East Batteries in Charleston, South Carolina.

SE LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA

like the one to which the Chesapeake and Ohio, the Norfolk and Western, and the Pennsylvania Railways belong. Had the Chesapeake and Ohio and the Norfolk and Western in their building antedated the Pennsylvania, and if the Pennsylvania were now under the control of the two former lines, instead of these lines being under the control of the Pennsylvania, the communities lying around the shores of Hampton Roads would to-day be receiving most of the western merchandise for exportation now seeking the ocean at Baltimore and New York; as it is, the development of the two great railways, the Chesapeake and Ohio and Norfolk and Western, that draw for their western traffic on the same region of country as the Pennsylvania, is not permitted to pass beyond a certain point, less they should, as great competing highways, diminish the profitableness of the northern line with which they are practically incorporated, and by which the general administration of their affairs is directed.

New Orleans by its situation is, happily for its own welfare, more or less removed from the shadow of that hostile influence which the immensely larger capital and consequent power of such a city as New York casts over the fortunes of such ports as Norfolk, Newport News, and Brunswick on the Atlantic coast. The trend of the bulk of the south-central and far West products is toward the Gulf ports, because it has been found impossible in this case to divert the flow of the waters of trade from the channel created by far greater proximity and far cheaper freight rates. With the growth in the financial resources of New Orleans, it will become increasingly difficult to wrest its present export business from its grasp; in time, it will acquire that controlling influence in the south-central area of the United States which New York possesses as far west as Chicago and as far south as Savannah. New York and New Orleans are now the two greatest ports in the United States in the volume of their foreign shipments. New Orleans is still far behind its northern rival in wealth

and population as well as in the size of its export and import trade, but its general advance, of late years, has been so remarkable that it is not unreasonable to expect that it will in time become the second imperial city of the Union—perhaps the first, when the Southern States have arrived at that stage of general development which the commonwealths of the north-central West, the makers of New York, have already reached. The waters that flow by her wharves come from springs as far to the northeast as New York State, and as far to the northwest as Montana. It would be a mere flight of imagination to expect that the city will in time draw to itself practically the whole of the export trade of this wide region of country, for this region really constitutes the body of the United States; but it is not fanciful to foresee that the commercial influence of New Orleans will spread much further up the valleys of its mighty river and its tributaries, and that, in consequence, its export trade will continue to grow enormously as the years pass.

Not New Orleans alone, but all the Gulf ports will receive an extraordinary impulse to their prosperity from the construction of the Isthmian Canal, as this new highway will open up a cheaper, quicker, and more direct way to the Oriental countries that already form such an important market for so many of the products of the United States. In the account already given of cotton manufacture in the Southern States, we have dwelt on the probability that, after the canal has been finished, it will be no longer necessary to send the output of the Southern cotton factories to New York for shipment to Asiatic ports, but that instead it will be forwarded to New Orleans for transportation through the canal to those remote points. Such a course should add enormously to the importance of New Orleans, and by saving the present outlay for freight on Southern cotton goods dispatched to New York for Eastern distribution, through the agencies established in that city, should greatly enhance the profits of cotton manufacture in the Southern

States. This is but one article entering into the export trade among the very many to be supplied by the South and West to meet an Oriental demand which will seek the towns on the Gulf for foreign consignment. A new market now practically inaccessible to American goods will also by the canal be thrown open on the western seaboard of South America, and the Gulf ports will furnish for such goods the straightest and the least expensive route to the countries lying on that coast.

The figures already given show what are the five or six most important kinds of merchandise forwarded from the Southern ports. It will be of value to enumerate all the principal articles included in the shipments from a typical Southern port, and to name the foreign countries to which they are sent out. The full list of goods dispatched by sea from Savannah illustrates very strikingly the remarkable diversity of Southern exports; and the number of lands to which these different goods are consigned reveal in the plainest way how vast is the region covered by the foreign trade of the Southern States. We find that merchandise is sent out from Savannah to every country in Europe having a seaport,—as far as Sweden, Norway, and Russia, in the north, and Italy and Spain, in the south; to Brazil, Chili, Peru, and Uruguay, in South America; to the British and Dutch West Indies; to Cuba and San Domingo; to Nova Scotia; to Japan, and to the Dutch and British Eastern possessions.

The largest shipments, in 1901, were made to Germany, Great Britain, Belgium, Spain, France, Italy, and the Netherlands. Germany was the principal customer; she received through Savannah merchandise computed to be worth $21,953,409. Great Britain followed next, at a very considerable distance; the exports consigned to that country, during the same year, were valued at $12,330,928. Spain was the third in the list; her share in the exports of Savannah in 1901 was valued at $3,215,821; Belgium's share, at $1,650,435; France's, at $1,472,171; Italy's, at $1,062,387;

that of the Netherlands, at $1,043,091. The exports to South America and the East and West Indies, during 1901, were restricted to a much smaller volume.

The articles shipped from Savannah to these different countries consisted of raw cotton, cotton seed, cotton seed oil and meal, logs, lumber, ochre, pig iron, phosphate rock, pitch, rosin, rosin oil, spirits of turpentine, staves, and steel billets.

Of the cotton seed, about 1,000,000 pounds were sent to Bremen, and about 5,000,000 to Liverpool, while a small quantity was also sent to Trieste. The principal consignments of cotton seed meal were made to Bremen, Liverpool, and Havre; these cities received respectively 1,120,000, 5,613,559, and 448,000 pounds. To Antwerp and Rotterdam were exported 479,042 gallons of cotton seed oil, and to Trieste 32,048 gallons. Of the entire number of logs shipped abroad from Savannah, the proportion going to Rotterdam was valued at $50,800, while the remainder was consigned to British, German, and Italian seaboard cities. About 10,500,000 feet of lumber was, during the same year, sent to foreign countries, chiefly to the different German, British, Spanish, Dutch, and South American ports. The chief purchaser was Buenos Ayres, which received 2,123,000 feet, while 1,282,000 feet was forwarded to New Brunswick, and 554,000 feet to Santiago and Seville in Spain. The principal consignments of pig iron from Savannah were made to Liverpool, Manchester, Bremen, and Trieste. The largest was to Liverpool, and did not exceed 2,275 tons; the smallest, 1,500 tons, was to Bremen. Of the shipments of phosphate rock from the same port, 83,657 tons were consigned to Bremen and Hamburg, 58,779 to Antwerp, and 27,907 to Rotterdam. A large quantity was also sent to Italy, Austria, England, and Scotland. The rosin was forwarded to a great number of places; Rotterdam received 69,287 barrels, Hamburg 82,300, Antwerp, 60,330, Fiume and Trieste 56,074. Many barrels of rosin were also exported to Barcelona, Genoa, and Venice, Glasgow, Hull, Liverpool, and London, Buenos Ayres,

Montevideo, Valparaiso, and Rio Janeiro. The principal consignments of staves from Savannah were made to British and Spanish cities; thus, 70,199 were sent to Barcelona, 15,294 to Seville, and 15,500 to Liverpool. Of the sawn timber shipped abroad, 1,002,000 feet was exported to Bremen, 1,182,000 to Liverpool, 943,000 to Manchester, and 147,000 to Queenstown.

The domestic exports of Savannah, in 1901 were fairly typical of those of all the Southern seaboard cities. The principal consignments were made to Baltimore, Philadelphia, New York, and Boston. For the most part, the merchandise shipped consisted of fruits and vegetables, fish, eggs, flour, honey, lard, rice, sugar, syrup, coffee, cottonseed oil and meal, scrap iron, steel billets, pig iron, iron ore, pitch, tar, rosin, spirits of turpentine, tobacco, cigars, clays, minerals, fertilizers, wool, hides, leather, horses, palm fibre and leaves, roots, shingles, sponges, lumber and wood. Savannah's coastwise tonnage during the interval between September 1, 1899, and August 31, 1900, was: entrance tonnage, 859,507, clearance tonnage, 757,731.

During 1901, 2,542 vessels engaged exclusively in the coastwise trade entered the harbor of Norfolk, and 2,006 cleared.

The volume of merchandise brought into the United States through Southern ports is not in proportion to the volume of merchandise sent out. Although the former has steadily increased, it has not done so at the rate that has distinguished the growth of the export business of the Southern States in recent years. It should, however, be remembered that a number of towns situated in the interior, have, since 1880, been made ports of entry; though the foreign goods consigned to them pass through the seaboard cities, yet such goods do not enter into the statistics showing the proportion of these latter cities' import trade. The value of the imports forwarded, in 1900, through the principal Southern seaports to ports of entry in the interior was $10,634,046.

The value of the foreign merchandise passing through the Southern seaboard cities in 1890 and 1901, exclusive of that consigned to interior ports of entry, was $35,593,748 and $55,822,013 respectively. It should be said, however, that the value of the imports of Galveston in 1901 represents its volume of imports after and not before the city was so terribly stricken by the great storm. In 1899, before this catastrophe had occurred, its imports were estimated to be worth $2,921,366; in 1900 they fell to $1,453.54. The hurricane paralyzed the city. In addition to the loss of over six thousand lives, property worth $20,000,000 was destroyed. Yet typical Southern enterprise immediately asserted itself. In 1901, more cotton passed through Galveston than during any previous year. To-day no trace of the havoc remains. The storm-swept area has been raised seventeen feet, and a three-mile sea wall protects the city from a recurrence of the devastation of 1900.

In the course of eleven years, the value of the merchandise brought in through Southern ports showed a growth of over $20,000,000, or about 57.2 per cent. The most extraordinary increase occurred in the case of the imports through Newport News, which rose in value from $54,180 in 1890 to $4,090,451 in 1901. The advance in the value of the imports through Mobile, in the same interval, was almost as remarkable—the extent of the advance was from $107,015 to $3,008,449. The imports through Charleston doubled in value, while those through Tampa trebled. The value of the imports through Beaufort, Norfolk, Portsmouth, Fernandina, and Pensacola expanded to many times the original figures. New Orleans and Baltimore, during the same period made almost precisely the same addition to the volume of their respective imports, namely, an amount, in each instance, appraised at about $5,000,000. It was only in the case of the smaller seaboard cities that the value of the imports between 1890 and 1901 showed a notable decline, such as St. Johns and Key West in Florida, and Saluria and Corpus Christi in Texas.

CHAPTER XVIII

FINANCIAL FACILITIES

FROM the growth in every department of Southern agriculture and manufacture, of late years, it has followed very naturally that, during the same period, there has been an enormous increase in the amount of the banking capital of the Southern States. Before the panic of 1893, which pricked so many insubstantial enterprises, there was a large number of banks in these States whose incorporation was not justified by the needs of the communities in which they were established—indeed, they were established in the anticipation that the needs of the communities would soon grow up to them, and by giving them a firm footing, make them permanently prosperous. These banks were merely promoters' institutions, and when the panic of 1893 came on, like so many of the iron furnaces in the Southern Piedmont region set up in a similar spirit, they either sank at once or dragged on a languishing existence. The panic, as affecting the banks as well as other institutions not founded on the rock of the South's real wants at the hour, brought out clearly which were the sound and healthy ventures, and which the weak and unsound. Now, just twelve years after that storm swept over the South with destruction for every financial enterprise that had not struck its roots down deep in the soil, the banks of that section find themselves in a condition not surpassed in prosperity by the condition of the banks in any other part of the Union. The directors of these institutions

were taught a lesson by the disasters of 1893, which they have been scrupulous to apply in the management of their banks' affairs. Nowhere, it has been correctly said, are banking methods more progressive in spirit than in the South to-day, and yet nowhere are these methods more conservative; and this spirit is all the more significant in the light of the fact that the banking capital of the Southern States is, in the bulk, not only controlled, but also owned by Southern men, whose entire interests are bound up in the prosperity of the communities in which they reside.

Unfortunately, a very large proportion of the Southern people are, by the peculiarities of the National Banking Act, deprived of the benefits which the growth in the banking capital of the Southern States is conferring upon those engaged in so many departments of Southern industry. The National Banking Act subserves the welfare of the towns and cities to a higher degree than it does the welfare of the rural districts. By that Act, all loans on the security of real estate are forbidden. The greater number of Southern farmers and planters have no other security to offer, and in consequence, when, in the course of their business, they need advances of money, they are compelled to borrow from the commission merchants who sell their products. We have already shown the great damage inflicted on Southern agriculture by the system of crop mortgages by which the commission merchants protect themselves against loss in making loans at extortionate rates of interest to their unfortunate customers. One reason, as we have pointed out, for the rapid growth of cotton manufactures in the Southern States is that the stock of the cotton mill companies, subscribed to so largely, as we have seen, by the planters and farmers, can be used as collateral for advances by the local banks. Of all the problems affecting the welfare of those who follow agriculture in the South, perhaps the most important is—how can that class, as a whole, be rescued from their present state of dependence upon the commission merchants for all their banking facilities? As

long as Southern lands cannot be sold quickly in the open market, no bank whose affairs are administered so carefully as to have all its resources ready for instant use in a crisis, however unexpected, is justified in making heavy or numerous loans on farms and plantations—no bank, in fact, can safely take the risks of the commission merchants under the present crop mortgage system. From at least one point of view, it is better in the long run for the general welfare of the Southern States that their banks should not have their funds tied up in mortgages on lands practically unsalable in an emergency, for inevitably such a condition would impart a high degree of instability to the banks' affairs, and this, by diminishing the prosperity of every branch of business, would affect injuriously the welfare of every person in the community.

Strict enforcement of the laws against usury would only lead the commission merchants to curtail their loans, or even refuse to make any at all, and thus take away from the farmer or planter without collaterals acceptable to a bank all hope of obtaining necessary advances. So far as the landowners of the South are concerned, it seems probable that as a mass they will, during a long period, be absolutely dependent on this bastard form of banking, in the face of all the ruinous effects, direct and indirect, which it creates. A large proportion of the landowners must always remain so unthrifty as never to acquire the collateral demanded by the banks in making loans; there is reason, however, to hope that, as the number of Southern towns and cities increases in consequence of the rapid development in every branch of manufacture, the agricultural class, as a whole, will be so much benefited by the innumerable local markets raised up at their very doors, that they will be able to accumulate property in some other form besides land and live stock, which will be readily accepted as collateral by the local banks. The recent change in the National Banking Act allowing national banks with a capital as small as $25,000 to be set up, has done much already to stimulate

business in the Southern States by extending banking facilities to communities previously without them; and in the end, as the farmers and planters become more thrifty, this broadening of the scope of the National Banking Act will subserve their welfare as much as it has already subserved the welfare of other sections of the community.

It is partially due to the fact upon which we have dwelt, namely, that a large section of the Southern people are farmers and planters without collateral acceptable to bank managers, that the number of banks in the Southern States is smaller in proportion to the number of inhabitants than it is in any other division of the Union. An additional explanation is that practically the entire mass of negroes—such a large part of the population of the South—are too thriftless to create by their own financial wants any local demand for banks.

The enormous destruction of property in consequence of the War, from which the Southern States have not yet recovered, constitutes a third reason for the smaller number of banks situated in that part of the Union as compared with other parts more favored in the recent past by fortune.

On December 2, 1901, there were in the States of New England 792 banks, or one bank to every 7,056 inhabitants; in the Eastern States (including Maryland), 2,528 banks, or one bank to every 6,922 inhabitants; in the Middle States, 5,950 banks, or one bank to every 3,946 inhabitants; in the Western States, 1,986 banks, or one bank to every 2,634 inhabitants, and in the Pacific, 681 banks, or one bank to every 4,881 inhabitants. On the other hand, there were in the Southern States (exclusive of Maryland) at the same date 2,528 banks, or one bank to every 8,897 inhabitants. In other words, although the Southern States contained at this time 28.8 per cent of the population of the Union, they possessed only 17.5 per cent of the entire number of banks in operation in the United States.

Though falling behind the Middle and Western States in number of banks, the South surpasses those divisions

of the Union in the average amount of capital and surplus profits belonging to her banks; the average amount for the Southern States is $73,791, while that for the Middle is $72,522, and for the Western $34,425. The commonwealths of the South follow in this respect the New England, the Eastern, and the Pacific.

Let us first consider the national banks of the South. The total number of such banks in actual operation in the Southern States on September 30, 1901, was 738, and the amount of their capital was $87,819,920. The volume of their deposits at this date was estimated as being between two hundred and twenty and two hundred and fifty millions of dollars.

It will be interesting, as throwing light on the growth of the Southern States in financial power, to make some examination of the rate at which the national banks of each of these States increased in number and total resources during the period between 1876 and 1901.

In 1876, there were thirty-one national banks in Maryland; in 1901, seventy-seven, an addition during this interval of forty-six. The total resources of the national banks in the State advanced from $44,506,000 to $99,597,000, an increase of over fifty-five millions of dollars.

In 1876, there were nineteen national banks in Virginia, with total resources of $13,178,000; in 1901, there were forty-seven, with total resources of $44,678,000. In this interval, the number of national banks had received an addition of twenty-eight, and their resources had been enlarged to the extent of thirty-one and a half millions of dollars.

In 1876, there were fifteen national banks in West Virginia, and in 1901 forty-six, an addition to their number of thirty-one. In the same interval, the total resources of the national banks rose from $5,054,000 to $30,443,000, an increase of $25,389,000.

In 1876, there were fifteen national banks in North Carolina, and in 1901, thirty-six, an increase of twenty-one.

In the same interval, the total resources of the national banks in the State advanced from $7,213,000 to $17,073,000, an addition of $9,860,000.

In 1876, there were in South Carolina twelve national banks, with total resources amounting to $7,722,000; in 1901, there were seventeen in the State, and their total resources were estimated at $13,593,000. In the interval, the number of national banks had received an addition of five, and their total resources of $5,871,000.

In 1876, there were twelve national banks in Georgia; in 1901, thirty-two, an increase of twenty. In the same interval, the total resources of the national banks in the State rose from $6,638,000 to $28,480,000, an addition of $21,842,000.

In the interval between 1876 and 1901, the number of national banks in Florida increased from one to seventeen, while their total resources expanded in the same interval from $166,000 to $11,852,000. This represented an addition of sixteen to the number of national banks, and of $11,686,000 to their total resources.

In 1876, there were ten national banks in Alabama; in 1901, thirty-five, an addition of twenty-five. In the same interval, the total resources of the national banks rose from $4,468,000 to $22,497,000, an addition of $18,029,000.

In the interval between 1876 and 1901, the number of national banks in Mississippi increased from seven to fourteen, and their total resources from $2,287,000 to $7,468,000. This represented an addition of seven to the number of banks and $5,181,000 to their total resources.

In 1876, there were seven national banks in Louisiana; in 1901, twenty-six, an increase of nineteen. In the interval between 1876 and 1901, the total resources of the national banks of the State advanced from $11,783,000 to $42,971,000, an addition of $31,188,000.

In the interval between 1876 and 1901, the number of national banks in Texas increased from ten to two hundred and eighty-four, and their total resources from $3,622,000

to $133,815,000. This represented an addition of two hundred and seventy-four to the number of national banks in the State and $130,193,000 to their total resources.

In 1876, there were two national banks in Arkansas; in 1901, ten, an increase of eight. In the same interval, the total resources of the national banks rose from $581,000 to $6,468,000, an addition of $5,887,000.

The number of national banks in Kentucky increased from forty-eight in 1876 to eighty-four in 1901, and in the same interval, their total resources advanced from $28,262,000 to $69,475,000. This represented an addition of thirty-six to the number of banks, and of $41,113,000 to their total resources.

In 1876, there were twenty-five national banks in Tennessee; in 1901, fifty-five, an increase of thirty. In the same interval, the total resources of the national banks in the State rose from $11,400,000 to $43,339,000, an addition of $31,939,000.

The increase in the number of national banks in the Southern States during the interval between 1876 (the year when the Federal bayonets were withdrawn from the Southern States, and the white people were left in control) and 1901 was 568, and in their total resources the enormous sum of $424,809,000.

It is not inaccurate to say that the overwhelming proportion of this increase in the South's financial resources represented the accumulations of the Southern people themselves, a proof alike of their energy and thrift as well as of the vast natural wealth of their division of the United States.

In the course of the last few years the number of national banks and the amount of their capital have increased more rapidly in the South than in any other part of the Union except the Middle States. Let us take, for instance, the interval between November 1, 1900, and October 31, 1901. It is found that during this period the number of banks organized in the South was 179, with a capital of $9,465,000,

while those of the Middle States numbered 230, with a capital of $12,305,000.

The Middle and the Southern States led the other States of the Union in the organization of new national banks, and the amount of capital invested in these banks ran ahead of the amount invested in similar banks in the four other great divisions of the Union as a whole by $4,511,500. The amount of capital invested in new national banks in the Southern States in this interval was equal to more than one-half of the amount invested in new national banks in the Western, Eastern, Pacific, and New England States combined.

The most extraordinary increase in any one commonwealth during this period occurred in Texas; the number of national banks chartered there between November, 1900, and October, 1901, was ninety-three, with a capital of $3,623,000. Between December, 1899, and December, 1900, the number of such banks in the State grew from 194 to 284—an increase of 46 per cent in the course of two years. In 1902, there were about 325 national banks in Texas, and they possessed an aggregate capital that exceeded $23,000,000.

In examining the national banks organized in the Southern States in the interval between March 14, 1900, and October 31, 1901, we find that, as a rule, they were established in the small towns. In Maryland, for instance, only two of the new banks chartered during this period were organized in Baltimore, and these two were simply State banks which had been turned into national banks; the remaining eleven were organized in towns of comparatively small population, such as Midland, Cumberland, Havre de Grace, Upper Marlboro, Sandy Spring, and Port Deposit. Of these eleven new national banks five began business each with a capital of $25,000 in accordance with the amended provisions of the National Banking Act.

In Virginia, during the same period, the entire number of new national banks were established in towns of small

population, such, for instance, as Culpepper, Orange, Covington, Scottsville, South Boston, and the like. Of the twelve new national banks chartered, eight were organized each with a capital of $25,000.

Twelve new national banks were chartered in the same interval in West Virginia; the capital of six of these banks was respectively only $25,000, and the entire twelve were established in such small towns as Ronceverte, Parkersburg, Fayetteville, Hinton, and the like.

All the national banks chartered during the same period in North Carolina were organized in the small towns of the State, like Morgantown, King's Mountain, and Oxford. Seven of the eight new national banks thus established possessed respectively a capital of $25,000.

Only two national banks were chartered during the same period in South Carolina; each possessed a capital of $25,000, and each was established in a small centre of population. One was organized in Orangeburg; the other in Batesburg.

Of the six new national banks chartered in Georgia, five were organized with a capital of $30,000 respectively, and but one with a capital of $25,000. Georgia forms an exception to the rule to a further degree in the fact that one of these new national banks was established in the largest city in the State, namely, Atlanta; but this was really a State bank converted into a national bank. The remaining five were established in such small centres as Albany, Forsyth, Jackson, Fort Gaines, and Bainbridge.

Of the two new national banks chartered, during the same period, in Florida, one was organized with a capital of $30,000, and in a small town, namely, Arcadia.

Eleven new national banks were chartered, during the same interval, in Alabama. Three of these were organized in large cities, but were merely State banks converted into national banks; of the remaining eight, four were capitalized each at $25,000, and one at $27,000, and the entire eight were established in such towns as

Greenville, Troy, Thomasville, Geneva, Andalusia, Abbeville, and the like.

The two new national banks organized in Mississippi, during the same period, were organized each with a capital of $25,000. Both were established in the smaller centres of population.

Of the seven new national banks incorporated in Louisiana, two were organized each with a capital of $25,000, while one was simply a State bank converted into a national. The majority of the new banks in this commonwealth were also established in the small towns.

This was also true of the three new national banks incorporated, during the same period, in Arkansas. Each of these was organized with a capital of $25,000.

Of the eight new national banks chartered in Tennessee, one was a State bank converted into a national bank; of the entire number, six were organized each with a capital under $30,000. As in Arkansas and the other States already enumerated, the large majority of these new national banks were established in the small towns.

Eleven new national banks were, in the same interval, incorporated in Kentucky. One of these was a State bank converted into a national bank; of the remainder, five were organized each with a capital of $25,000, and the entire ten were established in the smaller centres of population.

Of no commonwealth of the South is it more true than it is of Texas that the new national banks incorporated within its borders, during this period, were organized in small towns and with a limited capital. Sixty-four of the new national banks chartered in this State between March, 1900, and October, 1901, were organized each with a capital that fell below $30,000; and, with hardly an exception, they were established in the smaller centres.

A careful examination of the resources of the national banks of the Southern States, as reported on September 30, 1901, shows that in all these States there were at that time a large number of these institutions whose resources

REESE LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA

Copyright, 1905, by



Map showing the railroads in th



uthern portion of the United States.

REESE LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA

ran over $200,000. Let us consider each commonwealth in turn, according to its place in the alphabetical list.

In Alabama, at the date named, there were twenty-seven national banks each with resources amounting to more than $200,000; sixteen of them possessed respectively total resources in excess of $300,000 in value; eleven, of $400,000; ten, of $500,000; eight, of $1,000,000; and two, of $3,000,000. These twenty-seven national banks were situated in the eighteen largest cities of the State. The two leading institutions among them were the First National Bank of Birmingham, with total resources running as high as $3,659,507.72, and the First National Bank of Mobile, with total resources estimated at $3,001,421.

At the same date there were in Arkansas seven national banks each with total resources computed to be above $200,000. Six of these seven banks were respectively in possession of resources running over $400,000 in value; five, over $500,000; and three, over $1,000,000. The total resources of the largest bank in the State, which was situated in Little Rock, were estimated at $1,550,222.93. These seven banks were established in the five leading cities.

There were fourteen national banks in Florida on September 30, 1901, each with total resources that amounted to more than $200,000. The total resources of thirteen of the entire number were respectively in excess of $300,000 in value; nine, of $400,000; seven, of $500,000; and three, of $1,000,000. The largest resources were in possession of a bank situated in Jacksonville; they were estimated at $3,542,368.33. The fourteen most important national banks of the State were established in its nine largest cities; eight of the fourteen were found in Jacksonville, Pensacola, and Tampa.

There were twenty-seven national banks in Georgia each with total resources running over $200,000. Twenty-one of the twenty-seven were respectively in possession of resources in excess of $300,000 in value; seventeen, of

$500,000; nine, of $1,000,000; three, of $2,000,000; and one, of $4,000,000. The total resources of the most important bank, which was situated in Atlanta, were estimated at $4,028,952.96, while a second bank, also situated in the same city, possessed total resources computed at $3,016,092.36. Of the twenty-seven national banks in the State each with total resources exceeding $200,000, fourteen were established in Atlanta, Augusta, Columbus, Macon, and Savannah; the remainder were divided between thirteen other cities of the commonwealth.

There were seventy-three national banks in Kentucky on September 30, 1901, each with total resources amounting to more than $200,000 in value; and of the seventy-three, fifty-five possessed respectively total resources above $300,000; thirty-three, above $500,000; twelve, above $1,000,000; four, above $3,000,000; and two, above $5,000,000. The most important bank in the State was situated in Louisville; its total resources were estimated at $6,915,450.23. This city possessed six national banks each with total resources running over $2,000,000. The seventy-three national banks of Kentucky each with total resources of $200,000 were found in the thirty-four largest cities.

There were twenty-three national banks in Louisiana each with total resources exceeding $200,000 in value; eighteen of these respectively possessed total resources amounting to more than $300,000; fourteen, to more than $500,000; ten, to more than $1,000,000; six, to more than $2,000,000; and four, to more than $5,000,000. There was in New Orleans at this date one bank with total resources estimated at between two and three million dollars; one, between three and five; and three, between five and seven millions. The total resources of the most important bank in the city were computed to be as much as $7,078,201.06. Seven of the national banks in the State each with resources exceeding $200,000 were situated in New Orleans, and the entire twenty-three were confined to eleven of the largest towns.

There were sixty-five national banks in Maryland on September 30, 1901, each with total resources running over $200,000 in value. Of these sixty-five banks, fifty-eight had respectively total resources in excess of $300,000; thirty-seven, of $500,000; twenty-one, of $1,000,000; sixteen, of $2,000,000; six, of $4,000,000; and three, of $5,000,000. The city of Baltimore possessed fourteen banks each with total resources amounting to more than two millions of dollars; six, to more than four millions; and two to more than ten millions. Of the two most important national banks in the city, the total resources of one were valued at $10,179,856.58, and those of the other at $12,152,674.27. Nineteen of the sixty-five national banks of Maryland having respectively total resources in excess of $200,000 were situated in Baltimore, while the entire sixty-five were found in the twenty-nine largest towns in the State.

On September 30, 1901, there were twelve national banks in Mississippi each with total resources amounting to more than two hundred thousand dollars in value. Eleven of these banks possessed respectively resources in excess of $300,000; seven, of $500,000; and one, of $1,000,000. The largest bank in the State was situated in Meridian, with total resources estimated at $1,028,865.20. The entire number of national banks each with resources running over $200,000 were found in nine cities.

On the same date, there were fifteen national banks in South Carolina each with total resources amounting to more than two hundred thousand dollars in value. Of these fifteen banks, twelve respectively were in possession of resources that ran over $300,000; nine, over $500,000; four, over $1,000,000; and two, over $2,000,000. The two most important national banks were situated in Charleston; one possessed total resources estimated at $2,199,244.27; the other, total resources estimated at $2,788,414.41. The entire number of banks in the State each with resources exceeding $200,000 were found in ten towns.

There were forty-seven national banks in Tennessee on September 30, 1901, each with total resources amounting to more than two hundred thousand dollars in value. Of these forty-seven national banks, twenty-eight were respectively in possession of total resources above $300,000; eighteen, above $500,000; twelve, above $1,000,000; eight, above $2,000,000; and two, above, $4,000,000. Of the two most important national banks in the State, one was situated in Memphis, and the other in Nashville; the total resources of the former were estimated at $4,006,703.07, and of the latter at $4,058,065.15. Fourteen of the forty-seven national banks in the State each possessing total resources in excess of $200,000 were situated in Chattanooga, Knoxville, Memphis, and Nashville. The entire forty-seven were found in twenty-seven towns.

On September 30, 1901, there were in Texas one hundred and eighty-seven national banks each with total resources exceeding two hundred thousand dollars in value. One hundred and forty-one of these banks possessed respectively total resources above $300,000; eighty-one, above $500,000; twenty-eight, above $1,000,000; and seven, above $2,000,000. The most important national bank in the State was situated in Dallas; its total resources were estimated at $4,024,005.20. One of the national banks established at Houston had total resources valued at $3,054,270.86. The entire number of national banks each with total resources running over $200,000 were found in one hundred and twenty towns.

There were thirty-nine national banks in Virginia each with total resources amounting to more than two hundred thousand dollars in value. Of these thirty-nine banks, thirty-four possessed respectively total resources running over $300,000; twenty-five, over $500,000; fourteen, over $1,000,000; and five, over $2,000,000. The most important national banks were situated in Richmond; one possessed resources valued at $3,909,175.68; the other,

resources valued at $4,242,644.55. The eleven principal national banks of the State were found in Lynchburg, Richmond, and Norfolk. The entire number with capital respectively exceeding $200,000 were situated in twenty-four towns.

On September 30, 1901, there were thirty-six national banks in West Virginia, each with total resources amounting to more than $200,000 in value. Thirty-one of these banks possessed resources in excess of $300,000; twenty-one of $500,000; and nine, of $1,000,000. The most important national bank was situated at Wheeling; its total resources were estimated at $2,763,500.92. The entire number of national banks each with resources exceeding $200,000 were found in twenty-five of the largest towns.

Summarizing our information we find that in the Southern States (not including North Carolina, however), there were, on September 30, 1901, 572 national banks each with total resources running above $200,000, 445 each with total resources running above $300,000, and 289 above $500,000, while there were 134 with total resources amounting respectively to more than $1,000,000, and 34 to more than $3,000,000. This represented a total number of 572. The statistics for the national banks of North Carolina would add considerably to all these figures with the exception of the last.

State banks are more numerous throughout the South than in the other divisions of the Union except the Middle and Western. In amount of capital invested in institutions of this kind the Southern are second only to the Middle States. The popularity of the State banks in the South would have been far greater than it is had the heavy Federal tax now imposed on them no existence. A certain prejudice, born of the antagonistic spirit of the War as well as of the transmitted influence of the old system of State banks which had such a firm footing in the Southern States during the period of slavery, has had a considerable effect in the past in curtailing the number of national banks in the

South and in increasing the number of State banks in spite of the disadvantage which the tax raises against them. It was also something in their favor that, when the South was greatly impoverished, they were not forbidden to make loans on real estate. The proportion of banks of this kind among those newly organized is steadily falling as the Southern States grow wealthier, and it is not improbable that these States will have as few in time as the New England States have at present. At the end of the fiscal year, June 29, 1901, there were 1,345 State banks in the South, including, in the case of Kentucky, the private banks. At this time there appear to have been no State banks in Texas. The capital invested in banks of this kind was, on the same date, estimated at $62,931,162, and the amount of deposits at $212,736,600.

In number of savings banks, the South runs very much behind the other divisions of the Union except the Pacific Slope. Inclusive of Maryland, there were in the Southern States on June 30, 1901, fifty-two savings banks; but, exclusive of that commonwealth, the capital invested in these States in banks of this kind at that time amounted to only $1,250,600, and the deposits to only $13,450,497. The deposits of the savings banks of Maryland alone, however, were on this date estimated at $61,250,694. Their great volume was chiefly owing to the presence in the State of a large city, Baltimore. The fewness of savings banks in the South is due in considerable measure to the comparative smallness of the towns, but above all to the fact that the bulk of the laboring population, upon whom such banks are mainly dependent for support, are negroes, who as a mass have not yet acquired those habits of thrift which are the main source of the prosperity of similar institutions in other parts of the Union. This branch of the banking business is certain to expand in the Southern States as their towns and cities increase in wealth and number of inhabitants, and as the working classes, agricultural as well as mechanical, in the rural districts become more saving.

The number of private banks in the Southern States in proportion to the population of these States compares very favorably with the number of the like establishments in the other divisions of the Union. Exclusive of Kentucky, the statistics for which are included in the figures we have given concerning State banks, these institutions on June 29, 1901, numbered about 308, with an aggregate capital of $16,121,703, and with deposits amounting to $16,963,295.

It will be interesting to summarize the preceding information relating to the national, State, savings, and private banks. We find, that on June 29, 1901, there were 2,450 Southern banking institutions of all kinds, with total resources that amounted, at the least, to $914,954,828. As numerous financial establishments, like loan and trust companies, are not here included, it is certain that on the date named the banking resources of the Southern States ran very much above these estimates, enormous as they are. At the present time, 1905, it would be entirely accurate to say that the total banking resources of the Southern States exceed one thousand million dollars. When it is recalled that at the end of the War of Secession, the whole banking capital of the South was destroyed, these figures, certainly so far as they relate to all these States except Maryland and Kentucky, which did not suffer so much from the conflict,—at least so far as their principal cities, Baltimore and Louisville, were involved,—disclose, in the most striking manner, a recuperative power in the Southern people perhaps unsurpassed in history.

CHAPTER XIX

TRANSPORTATION FACILITIES

The first railway in the Southern States to operate more than one hundred miles of track was the line that connected Charleston with Hamburg in South Carolina; this railroad, like the one running between Baltimore and Ellicott Mills, in Maryland, was opened to traffic in 1830, but was not completed until 1833. In 1831, a railway was laid between Richmond, Virginia, and the coal mines in the neighboring county of Chesterfield, a very short line, but not so short as the railway that in the same year was constructed between New Orleans and Lake Pontchartrain. Two years later a line of railway was built between Petersburg, in Virginia, and Blakeley, in North Carolina, the first laid down within the borders of the latter State. Alabama, in 1834, completed a railway between Tuscumbia and Decatur, which was about forty-five miles in length; in the next year Kentucky imitated Alabama's example by building a line from Lexington to Frankfort, a distance of twenty-nine miles; and the year afterward (1836) Florida followed the same example by building a line from St. Joseph to Lake Wimico. This road was only eight miles long. It was not until 1841 that the first railway in Mississippi, which was laid between Vicksburg and Jackson, was completed. In 1842 the first railroad in the present State of West Virginia was constructed from Harper's Ferry in the direction of Hancock, altogether a length of thirty-nine miles. About nine years

later the first railway in Tennessee was built; this was a line thirty miles long, and it united the cities of Nashville and Murfreesboro. The first railway in Texas and the first in Arkansas were laid in 1857.

Such were the small beginnings of the great systems of railways which now pass in every direction through the Southern States. At the opening of the War the entire railway trackage in these States did not exceed 10,352 miles; thirteen years later (1873), when the great panic came on and paralyzed every branch of business, there were 18,000 miles of railway in active operation in the South. No additional lines were built there between 1861 and 1865, but in the short interval between 1865 and 1873 new lines covering about 7,900 miles were laid. In the course of the next six years the total new trackage constructed extended about 1,435 miles. At the end of this period, 1879, the Southern States possessed about 20,000 miles of railway, an increase in twenty years of about 10,000 miles only. With the resumption of specie payments in 1879 every branch of business received a great impulse, and above all, railways; an unexampled activity in building railways set in in every part of the United States. This was especially observable in the Southwest, but new railroads were constructed throughout the Southern region; among the new lines laid down in the South Atlantic and Gulf States during this period of revival were the Atlantic and Danville, the Cape Fear and Yadkin Valley, the Chattanooga, Rome and Columbus, the Florida and Southern, the Georgia Southern and Florida, the Jacksonville, Tampa and Key West, the Marietta and North Georgia, the Macon and Northern, the Pensacola and Atlantic, the Savannah, Americus and Montgomery, the Savannah and Western, and the Western North Carolina. These roads alone possessed a trackage of at least 2,800 miles in length.

In the interval between 1880 and 1901, the railway trackage in the Southern States increased from 21,612 miles to 54,656, an addition of over 33,044 miles, which

was treble the number added between 1860 and 1880. The most extraordinary advance in railway construction between 1880 and 1901 took place in Texas; of the entire number of miles of track laid in the Southern States during this period, nearly one-third were laid within the boundaries of this one commonwealth. There, the greatest activity was shown in the decade between 1880 and 1890, during which interval 5,485.85 miles of new track was built as compared with 1,831.80 between the years 1890 and 1901. In South Carolina, Mississippi, Kentucky, Tennessee, and Virginia, respectively, the addition to the railway trackage was from 1,400 to 2,000 miles in extent, while in West Virginia, North Carolina, Florida, Alabama, Louisiana, and Arkansas, it was from 2,000 to 4,000. Over 3,000 miles of new trackage was, in the same interval, laid in Georgia; in Maryland, on the other hand, only 290 miles were constructed, a fact attributable to the existence already in that State of lines of railway that followed the trend of trade eastward and northward.

In the South Atlantic, Gulf, and Mississippi valley States,—Virginia, West Virginia, North and South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Tennessee, and Kentucky—the general earnings of the railways have greatly increased since 1880.

In the course of the interval between 1880 and 1900, the mileage operated grew from 14,243 to 33,375, the number of passengers transported during a single year, increased from 7,463,694 to 38,748,099, and the tons of freight from 15,866,522 to 105,939,011; in short, the quantity of freight, by the end of this period, had more than sextupled, while the number of passengers had quintupled. The gross earnings grew in proportion; they increased from $49,172,430 in 1880 to $170,038,234 in 1900. In the same interval, the amount of annual dividends paid expanded from $3,510,426 to $7,522,015; in other words, by the end of twenty years, it had doubled. These figures, exhibiting the growth of the passenger and

freight traffic of the railroads in the South Atlantic, Gulf, and Mississippi valley States, and also the sums they have paid in dividends, throw a light on the development of the Southern States, in the course of the last two decades, more vivid even than that which is obtained from an examination of the statistics relating to the increase in the banking resources of these commonwealths. The same favorable conclusions are reached if we divert our attention from the showing made by all the railways of the South indiscriminately to the showing made, during the same period, by the principal systems operating in that part of the Union, though these do not secure the entire quantity of Southern traffic. The number of leading trunk lines in the South increased from eight in 1880 to eleven in 1900, and their mileage from 4,122 to 14,922. During the same interval their capitalization and bonded debt expanded from $191,044,190 to $1,041,318,339. The passengers carried in 1880 numbered 5,429,953; in 1900, 41,717,224; the freight expansion during the same decade was from 8,393,761 tons to 85,937,212. The gross earnings amounted to $23,905,092 in 1880, and to $147,854,467 in 1900, an increase in the proportion of one to six during the interval, while the net earnings more than quintupled.

The motives which have brought about the consolidation of railway lines in the United States at large in recent years, whether by purchase or lease, have been as actively at work in the South as in the North and West. In a general way, these motives arrange themselves under two heads: (1) the ability to secure a larger quantity of freight by the establishment of those increased facilities for transportation made possible by the concentration of railway capital; (2) the elimination of the ruinous competition of lines running parallel through the same territory, or drawing their chief support from the same region of country.

Perhaps nowhere was rate cutting, in order to retain traffic, carried further than in the South before the movement toward consolidation on a great scale began there in 1898.

The chief evil of such cutting is the personal discrimination which it encourages. Consolidation tends to destroy personal discrimination by reducing the need of rate cutting; and it also tends to do away with freight charges that favor special cities and commercial centres to the detriment of others more eligibly situated. On the other hand, under particular circumstances it tends equally as strongly to deprive certain towns of traffic they are entitled to. We have pointed out the effect in this direction of the control by a Northern system of the Chesapeake and Ohio and Norfolk and Western Railways, which, but for this fact, would deliver a much greater volume of freight at Newport News and Norfolk than they do now. The acquisition of the Mobile and Ohio by the Southern Railway may, for the same reason, result in great injury to the city of Mobile, a city largely built up by this important road. As a part of an extended system to whose general interests its own interests are subservient, this railway can no longer act independently, and therefore its original object of making the welfare of Mobile its first consideration ceases to govern it.

In several respects the railway consolidation that has been going on in the Southern States of late years, has been of conspicuous benefit to that division of country. In the first place, the concentration of capital, which has meant concentration of management, has led to the introduction of an improved service. In the South to-day, the firmness of the roadbeds, the solidity and permanence of the bridges, the strength and size of the rails, the equipment of the passenger trains, the number of trains and the regularity of their schedules—all compare most favorably with the character, in these various particulars, of the great railway lines operating in all parts of the Northern and Western States.

In the second place, such a railway, for instance, as the Southern, which represents the consolidation of more than forty separate lines and ramifies throughout the South, with outlets in Washington in the East, Chicago in the North, St. Louis in the West, and New Orleans on the Gulf—a

railway with its welfare bound up in the welfare, not of a single State or of a couple of States, as formerly, but of a vast division of country, the Southern States as a whole—such a railway with its powerful corporate influence springing from its great length, enormous capital, and concentrated administration, is in a more advantageous position to build up the territory contiguous to its lines than were the small separate railroads out of which it was, in the beginning, welded. These railways, had their independence been maintained, would now be fighting among themselves for a share of traffic instead of uniting to carry out a general plan which, in benefiting the whole number as if they were one corporation, benefits all the Southern States. The policy of the great consolidated railways of these States to-day is, from some points of view, almost imperial in its scope. For instance, systems like the Southern and Seaboard Air Line are the most indefatigable and successful advertisers of the varied advantages which the South possesses, and are the most farsighted and powerful promoters of every means that will develop her resources, whether these means be immigration, the construction of new lines of railway, the improvement of the rural highways, or the introduction of new agricultural products.

In 1900 the principal railway systems in the Southern States were included in several groups. What was known as the Morgan group embraced the Southern Railway, the Mobile and Ohio, the Queen and Crescent, the Central of Georgia, the Georgia Southern and Florida, and the Macon and Birmingham. To the Pennsylvania group belonged the Chesapeake and Ohio, the Norfolk and Western, and the Baltimore and Ohio; the Gould group took in the Texas and Pacific, Missouri, Kansas and Texas; the Belmont group included the Louisville and Nashville, and the Nashville, Chattanooga, and St. Louis, while the Belmont-Morgan group embraced the Georgia Railroad, the Atlanta and West Point, and the Western of Alabama. The two independent systems were the Seaboard Air Line and Plant railways.

The greatest length of any system included in these groups is that of the Southern; this road, with its various branches, is about 7,000 miles in extent; while the Louisville and Nashville, which now belongs to the same group as the Atlantic Coast Line, has about 3,235 miles of track. The largest of the independent systems, the Seaboard Air Line, controlled in 1900 about 2,591 miles of track; this system embraces not only the railways which made up the original Air Line, but also the Georgia and Alabama and the Florida Central and Peninsula.

If we examine the railway facilities of each Southern State separately, it will be found that there is not one which does not share fully in the advantages conferred by the modern systems of railroads on the South as a whole.

Let us begin with Virginia. In 1874 the Chesapeake and Ohio was finished to Ohio River, and it was afterward extended from Richmond to Newport News. The commonwealth has received enormous benefit from this road, because, as a through line, it has given cheaper transportation from the West and furnished an abundant quantity of coal for the State's various manufactures; and, in addition, it has poured into Newport News a vast amount of grain as well as coal for foreign shipment. A second line that has been lengthened to the Ohio in recent years is the Norfolk and Western. This railway supplies every facility of conveyance to the seaboard for the products of the vast coal fields in southern West Virginia and southwestern Virginia. The Atlantic and Danville has been built through the region lying on the boundary between Virginia and North Carolina, long known as one of the finest soils for the growth of tobacco in the United States. The Southern Railway passes southward along the Piedmont Slope, and the Atlantic Coast Line through the country situated immediately on the sea. The Richmond, Fredericksburg, and Potomac Railway has become the common highway of six companies, and is the means by which they all find an outlet southward and northward,—namely, the Pennsylvania, Baltimore and Ohio,

Chesapeake and Ohio, the Southern, Atlantic Coast Line, and Seaboard Air Line. The Seaboard system has lately completed a road from Richmond to North Carolina, in which State it unites with the main stem. In recent years, also, the Norfolk and Western has constructed a road from Lynchburg to Durham, and also from Roanoke to Winston-Salem. The Shenandoah Valley Railway, which is also a branch of the Norfolk and Western, has been built from Roanoke down the Valley of Virginia to Hagerstown, Maryland; while the Richmond and Alleghany, now a branch of the Chesapeake and Ohio, has taken the place of the Kanawha Canal on the banks of the upper James River. Another railway of importance constructed in Virginia since 1875 is the New York, Philadelphia, and Norfolk, which has opened up to rapid transportation the fertile trucking regions of the Eastern Shore. The Norfolk and Southern has conferred a like advantage on the division of the State lying south of Norfolk.

The principal railways of North Carolina belong to some one of the three great systems, namely, the Southern, the Atlantic Coast, and Seaboard Air Lines. The Southern enters the State below Danville, Virginia, and extends, in one branch, westward toward Asheville, and in another, the main stem, southward toward Charlotte. The Seaboard passes through Gaston, Durham, and Raleigh, while the Atlantic Coast Line enters at Weldon, and runs southward, through a chain of small towns, to Wilmington. The Cape Fear and Yadkin Valley Road, a line of comparatively recent building, supplies the fertile region through which it has been laid with every facility of rapid transportation. The Norfolk and Southern affords similar facilities to the country lying along the Sounds. In addition to the Southern Railway, western North Carolina will soon possess a new western connection in the Ohio River and Charleston Road now under construction, while the central part of the State will secure a new outlet toward the north when the Durham division of the Norfolk and Western

REESE LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA



Facsimile of the Parthenon, erected for use as the Art Gallery of the Tennessee Centennial Exposition, held at Nashville in 1897.

Railroad is lengthened to Charlotte, a scheme likely to be carried out in the near future. A railway to unite Raleigh with Nashville has also been projected.

Taking North Carolina as a whole, it is found that there are only nine counties within its borders which are not touched by a railroad. The Southern Railway alone reaches forty-one counties of the State.

South Carolina is supplied with the same transportation facilities as North Carolina by the passage through its territory also of the great railway systems, the Southern, the Seaboard, and Atlantic Coast Lines. Columbia is connected by the Southern with Augusta, on the one hand, and with Charlotte, on the other; and the same town is, through the Seaboard, united with Atlanta and Charlotte. The Atlantic Coast Line affords an outlet for Charleston northward and southward. The Plant system controls a road from the same city to Savannah. Other railways situated in the State are the Florida Central and Peninsula, now a part of the Seaboard system, and the South Carolina and Georgia, recently incorporated with the Southern.

In Florida, the Plant and the Seaboard systems furnish means of rapid transportation to nearly every division of the State.

Georgia is fully supplied with such facilities throughout its territory. Between Atlanta and Cincinnati alone, seven competing railways are in operation, and there are twelve other lines to serve as potential rivals for the traffic between the two cities. The Central of Georgia runs southeastwardly from Atlanta to Savannah, and, either with its main stem or its branches, connects with every important town of the commonwealth; it touches fifty-one counties, and its trackage extends over 1,301.54 miles. The Southern Railway also traverses fifty-one counties, and it controls 1,016 miles of track situated wholly in Georgia. The Plant System passes through nineteen counties, with a length of trackage equal to 616 miles. The Georgia Railway, which traverses the principal cotton region of the

State, affords means of rapid transportation to eighteen counties, while the Georgia Southern and Florida serves the like purpose for the principal fruit and lumber belt. Other roads that further open up the different divisions of the State are the Atlantic, Knoxville, and Northern, the Macon and Birmingham, the Georgia and Alabama, and the Florida Central and Peninsula. In 1901, the railway trackage of Georgia was estimated to be 5,623.92 miles in total length.

Alabama, throughout nearly its whole area, is bisected by branches of the Southern Railway, which run out in every direction from Birmingham as a centre. The Mobile and Ohio, recently acquired by this system, and the Louisville and Nashville, now part of the Atlantic Coast Line group of roads, afford transportation facilities to the southern division of the State.

Mississippi is penetrated in its eastern regions by the Mobile and Ohio Railway, while from Columbus to Greenville, through the central part of the State, the main stem of the Southern passes. There is also a railway in operation between Meridian and Vicksburg, points situated further south, which runs on the same general parallel. The Illinois Central proper enters Mississippi near the middle of its northern border line, and traverses the entire State southward to New Orleans; the Yazoo and Mississippi Valley, a branch of the Illinois Central, descends in the same general direction, though closer to the banks of Mississippi River.

Louisiana enjoys great advantages in the number of railways that traverse it from every point of the compass. First, the Illinois Central; this great road, which has done so much to build up the trucking interests of the State, possesses two trunk lines, which, after leaving Louisiana, pass northward through Mississippi. These two branches bisect fifteen parishes of the State. Secondly, the Queen and Crescent, which embraces the New Orleans and Northeastern, the railway uniting Vicksburg and Shreveport, and the East Louisiana Railway, a system that traverses eleven

parishes. Thirdly, the Louisville and Nashville, which passes through only two parishes. Fourthly, the Texas and Pacific, which, beginning at New Orleans and extending northwestwardly, traverses sixteen parishes. Fifthly, the Southern Pacific, which runs westwardly from New Orleans through thirteen parishes of the State. Sixthly, a number of railways situated in different parts of the commonwealth, such as the Kansas City, Gulf, and Watkins, the Houston, Central Arkansas, and Northern, the Texas, Shreveport, and Houston, and the Shreveport and Red River.

Tennessee has long been well supplied with facilities for rapid transportation; as far back as 1896 at least three-fourths of the counties in the State were traversed by railroads; the Nashville, Chattanooga, and St. Louis passes through twenty-seven, the Louisville and Nashville through twenty-five, and the East Tennessee, Virginia, and Georgia through nineteen. Other railways that give an outlet to important territory in this commonwealth are the Cincinnati Southern, the Mobile and Ohio, and the East Tennessee and Western North Carolina.

CHAPTER XX

TRANSPORTATION FACILITIES—(Continued)

So ABUNDANT are the facilities for transportation by water in all the South Atlantic and Gulf States, that, for very many years, they have had a marked effect in regulating freight rates throughout these regions of country.

There are two distinct classes of water competition—the one represented by Ohio and Mississippi Rivers; the other, by the smaller Southern streams. Since 1880, there has been a remarkable decline in the volume of traffic on Mississippi River, though, in recent years, some increase in it has taken place; this falling off is attributable to the building on each side of this mighty flood of trunk lines of railway, which are able to haul over their easy grades long trains of heavily loaded cars at a small cost. In shipments of all ordinary merchandise for very short distances, the boats are still active competitors of the neighboring railroads, while in the transportation of ore, lumber, and coal for long distances, they are absolute masters of the situation; in other departments of freight, the Ohio and Mississippi Rivers are merely factors in the regulation of railway rates, but in these three departments the two streams are prohibitive of railway traffic between Pittsburg and New Orleans. The volume of lumber, coal, and ore carried by river down to the latter city is steadily increasing.

The competition between the railways and the smaller streams of the South is less strenuous than that between

the railways and the large streams; nevertheless, the one as much as the other fixes the minimum rate of competing lines. The far less effective competition of the smaller streams is due primarily to the poor character of service upon them and this both as regards safety and regularity; and it is also due, in some measure, to the fact that the railroads either own the local steamboat lines, or have agreed with the steamboat companies to divide the field of traffic by leaving to them the low grade freights.

In spite of the general decline in the importance of the larger and smaller streams of the South as highways, they will continue to have both a direct and an indirect influence, small or large, according to their situation, on the railway freight charges. How great this influence is cannot be exactly determined, even though computation is made of the amount of goods delivered by water at such ports as Memphis, New Orleans, Vicksburg, or the cities built on streams of secondary size, such as the Tennessee and Cumberland, or those flowing into the Gulf. The river traffic, however, furnishes the base rate to which all the railroads must conform; and it is not the less potential because by conforming to this base rate, the railways take away a large quantity of freight that would otherwise fall to the share of local steamboat companies.

It is not inaccurate to say that there is hardly a single point in the South Atlantic and Gulf States where railroads are unexposed to competition by water, either actually or potentially. This fact has led, among other results, to a smaller recognition in the South of the long and short haul principle (as embodied in section 4 of the Act establishing the Interstate Commerce Commission) than has been observed in other parts of the United States. That principle is that no interstate carrier shall be permitted to charge more for "the transportation of passengers, or of like kinds of property, under substantially similar circumstances and conditions, for a shorter than for a longer distance over the same line in the same direction." This provision had

previously been in force in many of the Southern commonwealths in relation to traffic purely local, which was, of course, subject to the regulations of State laws. The general force of the national act was greatly weakened by the Alabama Midland Case, in which it was decided that "competition, whether of trade centres or railroads, was a factor in deciding whether the railroads should be required to recognize the long and short haul." The point was whether the Alabama Midland had a right to make a smaller charge on traffic sent over its lines to Montgomery than to Troy in the same State, although Troy was fifty-two miles nearer the point from which the freight started. The freight involved in the case had really passed through Troy on its way to Montgomery. The decision was based on the fact that Montgomery was a much larger trade centre than Troy, and that in transporting merchandise to it by rail, the rates were subject to water competition. As such competition existed, the Alabama Midland, in order to secure the traffic to Montgomery, was practically compelled to make a smaller proportionate charge than the rates to Troy, a nearer point, seemed to demand, if the long and short haul clause of the Interstate Commerce Law was to be strictly interpreted.

This is what is known as the "basing point system," which is justified by the existence at the "basing point" of a competing carrier, whether by river or railway. When a city is, for this reason, designated as a "basing point," a carload of merchandise can be transported through the town or station to which it is really consigned, to this more remote centre, and then be returned to its proper destination under the high schedule of freight charges which govern local rates. For instance, a carload of any commodity is dispatched from some distant point to a town or village situated twenty miles from Augusta, Georgia; the owner of the goods has to pay the through charges to Augusta, a basing point, and also the high local charges from Augusta back to the town for which the carload is really intended.

Basing points are scattered all over the Southern States, and in many cases they are towns of small importance in themselves. It has been claimed that the tendency of the system is to centralize business at a comparatively few places, and that in this way it damages the interests of other places enjoying superior advantages in situation. It undoubtedly has this effect, and this fact partly accounts for the increase in wealth and population of so many towns in the South, which have advanced so much more rapidly than other towns seemingly possessing greater natural advantages.

Apparently, though not really, opposed to what is known as the "basing point principle" is the principle of the "milling-in-transit" rates. This allows grain to be transported from Kansas City, for instance, to Birmingham, there to be milled, and then to be forwarded to its real point of destination further South—all at the same charges for freight as if the grain had been sent directly to this latter point without any stoppage by the way for the purpose of converting it into flour. Similar in spirit is the regulation known as the "floating cotton rates;" this permits a bale of cotton, after being loaded on the cars, to be taken off at some station on the same railway and passed through a compress, and then reshipped to the original place of consignment without any additional imposition. If the ordinary rates were enforced in the case of either the grain or the cotton, the charges on one part of the route, either before or after the first unloading, would be made in conformity with the local rates, which, with hardly an exception, are higher than the through rates in proportion to distance.

In justification of the apparent disregard by Southern railways of the principle of the long and the short haul, it should be remembered, first, that local freights are not so large in quantity in the South as in the more thickly settled regions of the North and West, and, therefore, the prosperity of these railways is more dependent upon low rates in making the long haul; secondly, that an enormous proportion of the articles transported are of a very low grade,

such as coal, grain, and the like, which can only be shipped at a profit when receiving the lowest freight charges.

The amount of revenue per ton per mile obtained in the different divisions of the United States from the freights carried over the lines situated within their borders shows that, with one exception, the Southern railways' rate is the lowest. The exception is the Middle States, and the fact is due, at least in part, to the circumstance that so much of the freights credited to these States passes through the Erie Canal. A large proportion of these freights also consists of grain, and therefore, belongs to the class of low-grade merchandise which forms the bulk of the Southern traffic.

The rates for manufactured articles carried into the South by the Southern railways from Eastern points as far away even as Boston, have always been lower than the rates for the like articles brought into the Southern States from Western points, as near, for instance, as Chicago and Cincinnati. Much complaint has been caused in the West by this fact, as it is asserted there that it practically shuts the Western manufacturers out of most of the Southern markets; it is only in low-grade merchandise, such as the products of the farm, that Western shippers declare they are allowed by the Southern freight charges to bid against Eastern sellers. In justification of their action, the Southern carriers claim that but for the low traffic rates on manufactured articles transported from Eastern cities, their roads would not be able to compete with the steamship lines plying between the Northern and Southern ports. This is only another illustration of how far Southern railway freight rates are practically controlled by water competition, either active or potential.

Since 1890 there has been an advance in rates for some classes of Southern freight; in this respect, the Southern railways have merely followed the example set by the great trunk lines in other parts of the Union. The number of commodities on which the freight charges have been raised

is about five hundred and thirty-one, while the number on which they have been lowered is about one hundred and five. The increase in the rates averaged about 30 per cent; the decrease, on the other hand, about 26 per cent. The advance applies chiefly to iron and steel products, and to cotton fabrics, on which articles the freight charges have been forced up as much as seventy-three cents per hundred pounds. The reason offered in defence of this advance was the same in the Southern as in the other States of the Union, namely, the increased expense of operation in consequence of the higher level of the prices asked for all kinds of railway supplies, such as steel rails and the like. It is possible that the extraordinary prosperity of the country made it appear a suitable opportunity for an advance in rates, apart from other considerations.

How much the Southern lines, in spite of the recent great consolidations, are still at the mercy of competition among themselves is shown in the struggle which has gone on in connection with the rates on raw cotton. The railroads in the Mississippi and Ohio valleys derive a considerable part of their revenue from transporting this staple northward for consumption by the New England mills; and in order to retain this traffic, they have been forced to reduce their freight charges to or even below the level of the tariff for the cotton conveyed by the lines running directly eastward to the Atlantic coast. There have been times when the freight rate on the raw material carried to New England was three and one half cents lower per hundred pounds than on that carried from the same points to the Carolinas for the use of the factories there. Every effort of the Eastern roads to equalize the conditions between the Northern and Southern patrons, so far as freight rates could accomplish it, has been defeated by the valley roads, which are interested in maintaining the prosperity of the Northern mills.

The extraordinary complications which would have followed from such competition among the Southern railways, if it had been left to work itself out to its logical end, led at

an early date after the War to an organization among the rival companies, one of the principal objects of which was to apportion the traffic in the raw cotton transported from interior points. This organization, known as the Southern Railway and Steamship Association, was composed of the Southern railways and the different steamship lines plying between the North Atlantic and the principal South Atlantic seaboard cities, but did not take in the steamship lines that united the North Atlantic and the Gulf ports. The commissioner who was placed at the head of the association possessed full authority to regulate the rates; but in time this was found to be insufficient. The business of the companies was then pooled, and the commissioner was empowered to make allotments to each line; if an allotment was not satisfactory, the company receiving it had the right to appeal to a board of arbitration appointed by the association. Under this system of allotments a division was made on a tonnage basis. As the Interstate Commerce Act of 1887 forbade pooling, the general character of the organization was modified after that date; a new agreement was entered into under the terms of which the commissioner's principal task was simply to watch closely the amount of traffic secured by each of the contracting lines. This he was able to do by the manifests of the competitive freights sent to him; it was his duty to report to the executive committee the manner in which the business of the roads was divided, and how far in any case it was in violation of the main purpose of the agreement, which was simply to maintain rates.

Among the important railway lines which united in upholding the agreement were the Louisville and Nashville, the Nashville, Chattanooga, and St. Louis, the Western Atlantic, the East Tennessee, Virginia and Georgia, the Norfolk and Western, the Richmond and Danville, the Atlantic Coast Line, the Seaboard and Roanoke, the Plant System, the Georgia Central, and the Georgia Railroad. The principal steamship lines joining in the arrangement

were the Merchants and Miners, the Old Dominion, and the Clyde. Of the leading Southern railways east of Mississippi River, the Illinois Central and the Mobile and Ohio alone were not parties, for their outlets were on the Gulf. On the other hand, all the great steamship lines plying northward from the South Atlantic as distinguished from the Gulf ports were bound by the terms of the agreement.

The Southern Classification Committee was organized for the purpose of establishing a perfectly uniform freight classification for the railways operating in Southern territory and also for the coastwise steamship lines. It has now about forty-two members, each of whom, whether composed of a single line or of half a dozen lines consolidated, possesses the right to cast a single vote. The Baltimore Steam Packet Company and the Chesapeake Steamship Company are each entitled to such a vote because managed independently of the Seaboard Air Line and the Southern Railway, to which they respectively belong. The controlling influence is in the hands of a sub-committee, composed of fifteen members, whose duty it is to pass upon complaints made by shippers, and to consider all facts, promotive or destructive of the best interests of the different lines, which may be brought to their attention; whatever recommendation they may think it advisable to make in the light of the information thus acquired has to receive the approval of the entire general committee before it can go into effect; it then becomes binding upon every one of the lines represented in the general body.

The rate-making organizations are entirely distinct from the Classification Committee. There are three associations of this kind in the Southern States,—first, the Southeastern Mississippi Valley Association, whose jurisdiction takes in all the country lying between the two imaginary lines, one drawn from Cincinnati down Ohio and Mississippi Rivers to New Orleans, the other from Cincinnati southward through Middlesboro, Chattanooga, Birmingham, and Montgomery to Pensacola, Florida; secondly, the Southeastern

Freight Association, whose jurisdiction embraces the country situated east of the Cincinnati-Pensacola line just defined, as far as Gainesville, Athens, Augusta, and Charleston; thirdly, what may be designated as the Eastern Freight Association, whose ground covers the greater part of Virginia and the Carolinas. These different organizations do not interfere with purely local rates; their single object is to adjust the tariffs for all competitive traffic within the boundaries of their respective territories.

It will be seen that the spheres in which the classification and the rate-making associations operate are entirely distinct, though their jurisdiction extends over the same general field and their membership is practically the same. Classifying freight and rating freight are two different things; the same persons, sitting at different times, may prescribe as members of one committee what the rate for first-class freight shall be between two given points; and as members of another committee declare what articles shall be taken as coming within the description of such freight. The officials who compose these important committees are among the ablest and most experienced men connected with the railways of the Southern States, such as general traffic managers, general freight agents, and the like—men who have the most practical knowledge, from the round of daily duty covering many years, of the questions they are called upon to decide in the classification of freights, the adjustment of rates, and the settlement of disputes.

Passing from steam to electric railways, it will be found that so far the use of electricity in propelling cars in the Southern States is almost entirely confined to urban or suburban tracks. These States as yet have not reached such a pitch of wealth and population that what may be described as rural electric railways have become an important means of local transportation, as in so many countries of Europe, and, to some extent, in many parts of the United States. The day will undoubtedly arrive in the South, as elsewhere, when every series of rural villages, or more or less populous

rural communities, will be connected by a trolley system either with a large town centrally situated, or the nearest station of a neighboring railway. The number of miles of electric railways in operation is 2,806, and the capital stock and bonded debt of the companies aggregate over $260,000,000.

The only State in the Union that has adopted a law providing for the improvement of its dirt roads at the expense of the entire commonwealth is Massachusetts. In the South, supervision of the public highways is left to the authorities of each county; and from various causes, the condition of these highways has been, on the whole, decidedly bad, especially at seasons when the roadbeds are softened and cut up by heavy rains. Of late a juster appreciation of the value of good roads has been growing in the Southern States, even in those parts that are remote from the largest centres of population. The road machine has come into general use in sparsely as well as in thickly settled regions, and while a roadbed improved by this means compares but poorly with one carefully macadamized, it is perhaps the best that, for many years, can be expected in a large proportion of the rural districts of the South, where the financial resources of so many counties, thinly populated as they are, and stretching over a wide area of country, do not justify any costly system of road making. It is estimated that one mile of macadamized highway will cost about $2,800. The system of roads in a single Southern county would, if all were to be macadamized, or even a small part, impose a burden on the people of the local community which would utterly destroy their prosperity. For many years to come, the practical question in these States, as a whole, will be how to make the comparatively small revenue that can be devoted to this purpose, go furthest; it is from this point of view that the Southern counties now especially interested in the improvement of their public highways are regarding the problem. The Southern railways deserve high commendation for the object lessons which they are giving in

road making; what are known as "good roads trains" are sent out, and the experts in charge of them show by practical example how the best highways, cheap as well as permanent, can be constructed.

State after State in the South, largely influenced by the spirit spread abroad by the railways and the good roads associations, have undertaken to promote, as far as legislation can do so, a system of highways that will afford greater facilities for transportation by wagon than the ordinary dirt roadbeds found at the present time so generally in the Southern States. The Carolinas are especially energetic in the effort to make better the condition of their highways. Recognizing the peculiar needs of separate counties, South Carolina has passed special Acts allowing these counties to carry out highway improvements on a different scale from that called for in the general law. A large number of convicts have also been leased to many counties for the purpose of working on the roads. In South Carolina, too, a great amount of the most highly perfected road machinery has been introduced in recent years, with the result that the highways of the State are now in better condition than at any time in their previous history.

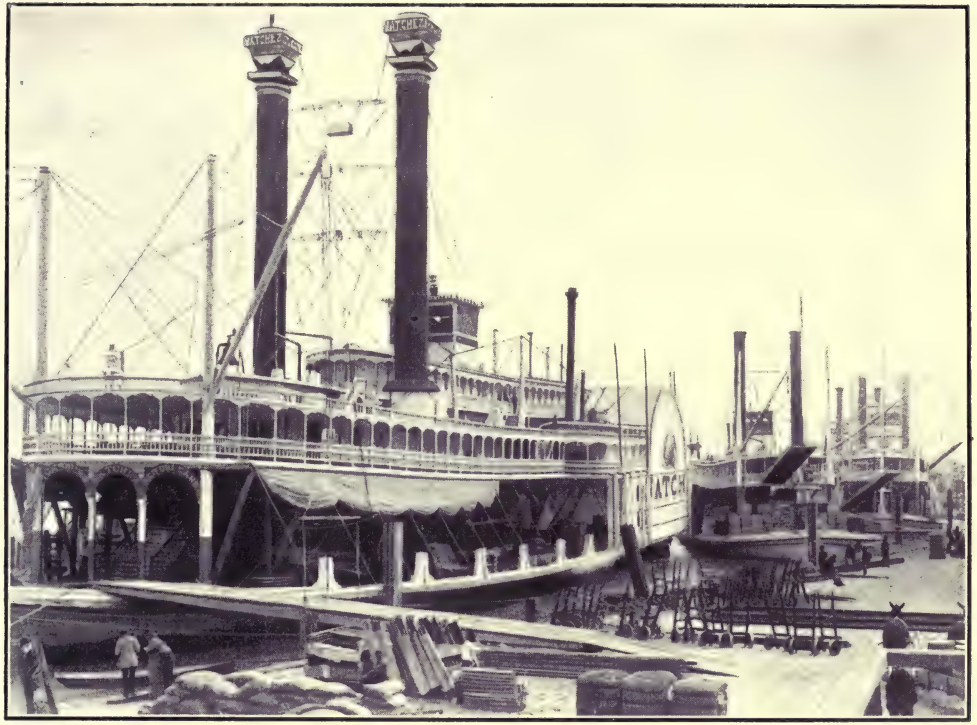
North Carolina has gone a step further. In addition to a steady substitution of iron for wooden bridges on the public highways, and the general use of the road machine, this State has begun to lay down stone roadbeds in many counties, especially in those which are rapidly expanding in wealth and population on account of the growth of their cotton manufactures.

Perhaps the most prosperous of all these counties is Mecklenburg, in which the city of Charlotte, an important manufacturing centre, is situated; this county has about forty miles of its public road macadamized, and about forty besides carefully drained and graded, while its bridges rest upon permanent stone piers. The manual work which brought about these improvements was done by convicts, and the cost was met by a tax of eighteen cents imposed on

every one hundred dollars of property in the county. Each township in it also possessed the right of levying a tax of seven to fifteen cents on the same amount for the like purpose. The policy in Mecklenburg County has been to macadamize all the roads running out of Charlotte; this has been steadily pursued; each road is treated in turn to the extent of a mile at a time, until there are now more than ninety miles of such highways in the immediate vicinity of the city; and the extension is still going on at the rate of about ten miles every twelve months. On account of the advantages resulting from their nearness to these improved highways, the adjacent farms are said to have advanced very much in value. In former times it was necessary to use four-horse teams to drag vehicles over the roads for which the macadamized highways have been substituted; such teams are not now often seen there. The cost of transportation is calculated to have been lowered at least one-half; moreover, products, such as milk and butter, which were not marketed at all when the old dirt roads existed, are now carried into the city over the new roads in steadily increasing quantities. It is estimated that Mecklenburg County expends on its public highways at least $40,000 every year.

Durham, Alamance, and Wake Counties have shown almost equal enterprise in the improvement of their public roads; many of these have been macadamized for miles. Here, as elsewhere, the work has been done principally by convicts. By the same kind of labor, the public highways in Buncombe, Cabarrus, and Hayward Counties have been redrained and regraded, and, to a very considerable extent, laid in broken stone.

In the eastern counties, where trucking has been carried so far, the passage of wagons and carts, in consequence, at certain seasons is continuous; as the character of soil here is very sandy, an effort to secure greater firmness in the bed of the highway has been made by mixing clay with it; and a coating of oyster shells has also in places been



Type of Mississippi River steamer.

LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA

successfully used. The great end to be attained in the roads of the whole trucking region is the production of a surface so smooth and hard as to allow a vehicle containing fruits or vegetables to pass over it rapidly without injuring the load by jolting; and the need of this has led, particularly in the vicinity of all the leading shipping points for truck, whether in Virginia, the Carolinas, or Georgia, to a general change for the better in the character of the public highways.

In Georgia, special provision has been made by law for the improvement of the public roads; in that State, each county enjoys the right to levy a separate tax for putting and keeping the public highways in good condition. Here, as in nearly all the other commonwealths of the South, the task of caring for these highways is intrusted to capable overseers and superintendents, who have under them large squads of laborers, and a full complement of road machines, scrapers, plows, wagons, and mules. In the counties in which important cities have been built, the roads are, to a very great extent, graded and macadamized. The macadamized highways leading out of Atlanta in every direction are among the most admirable of their kind in the United States; and this is almost equally true of the like highways of Floyd County, in which the city of Rome is situated; of those of Bartow County, in which Cartersville is found; of Richmond, the county of Augusta; and of Bibb, the county of Macon.

The desire for improved roads prevailing in Georgia is also observed in Alabama. And so earnest is the interest which has, in recent years, been felt in Louisiana in the same branch of public works that all wagons having tires exceeding four inches in width have been made free of taxation, because less liable to wear ruts in the roadbeds than narrower ones. In 1900, public meetings were held throughout the State with a view to fostering a general sentiment favorable to the systematic betterment of the public highways; experts, sent by the national government,

were present to give practical examples of the proper manner of laying down a roadbed, while public speakers drew a graphic picture of the benefits conferred on a community by the possession of roads that would allow a rapid and easy passage to vehicles transporting to market or railway the produce of the country.

CHAPTER XXI

THE SOUTH AS A WINTER RESORT

One of the most remarkable aspects of Southern development in the course of the last twenty-five years has been the steadily increasing popularity of the South Atlantic region, as far as the extreme southern point of the Florida Peninsula, as a resort for the sportsman, the pleasure seeker, and the invalid from all parts of the United States. So far as all three come from the North, as the great body of the visitors do, this is a comparatively new influence for the advancement of the South in prosperity; it was not until after the close of the War of Secession that the south Atlantic seaboard, from Point Comfort at the capes of Virginia to Palm Beach in the south of Florida, began to assume the character of the Riviera of the New World, the pleasure ground, the health resort of the wealthy and fashionable people of the republic at a season when the chilling humidity, the blinding snows, the piercing cold, and the fierce winds of the north curtailed all amusements in the open air, and tried the strength of the human frame. The annual rush of travellers in winter from the countries lying north of the Alps to the flower-scented, sun-bathed coast in the south of France and the north of Italy has its counterpart in the stream of people—some seeking recreation, some health, some an escape from the northern cold—which pours every year, at the same season, through the gateways

of Virginia into the pineclad sandhills of the Carolinas and Georgia, and the tropical reaches of Florida.

Independently of the mildness of their climate, these regions possess an enormous advantage over California, the only other part of the United States comparable with them, in their nearness to the great cities and the most populous communities of the North. In this respect again, the south Atlantic country resembles the famous French and Italian Riviera. New York, Philadelphia, and Baltimore in the Northeast, and Chicago, Cincinnati, and St. Louis in the West all lie but a comparatively few hours from Pinehurst, Aiken, Jacksonville, Palm Beach, and Thomasville. One railway, the Southern, during the winter season dispatches daily from New York six through trains to Florida, which, in their various appointments for the safety and comfort of the passengers, are unequalled in Europe, and unsurpassed in America. The Atlantic Coast Line and the Seaboard Air Lines afford the same luxurious accommodations to travellers seeking the health and pleasure resorts of the South. In the West, the different connections of the Southern Railway bring to their points of destination persons from the communities in that part of the United States who wish to pass the winter in Florida or the Carolinas. The great improvement in the railroads of the Southern States in the course of the last quarter of a century is, in no particular, more noticeable than in the facilities of all kinds which are offered to make the through journey to the South easy, comfortable, and convenient.

It will be interesting to refer in some detail to those Southern localities which have acquired a special reputation as health or pleasure resorts since the tide of winter travel set in toward that part of the Union.

First, the "Land of the Sky" as it has been named, that region in western North Carolina which contains the highest peak in the Appalachians, and is watered by the French Broad and the Swannanoa, two of the most beautiful streams in the United States. The centre of this region of mountain

and valley, mist and waterfall, is Asheville, a city which now has a population of 13,000. Previous to 1860, this spot was unknown beyond the borders of North Carolina. Of late years, it has become an important health resort, especially for those suffering from pulmonary weakness; several of the largest, handsomest, and best appointed hotels in the South have been erected here, where, in former times, the only inn was the old-fashioned tavern of a small Carolina town. Many thousand persons visit the surrounding country annually; and it has acquired additional fame as the site of the great Biltmore estate, belonging to George W. Vanderbilt, of New York, where all that fortune and taste can accomplish has been done to adorn the landscape.

In the same general region is Linville, which owes its existence to capitalists who bought here a small principality in wooded, uncultivated land, and then laid it off with great care as a health and pleasure resort, with divisions for town, farms, and gardens, but with all its natural features, as far as possible, retained and preserved. In this beautiful domain, there are at least ten miles of trout stream and thirty miles of graded driveways, while towering white pines and spreading hardwoods cover a large part of it with the noblest forest. The whole is encompassed by the most imposing scenery in the Appalachian Range.

Southern Pines, which has become well known as a resort for those suffering from throat, lung, and like affections, lies in the central part of the State. It was established at an earlier date than Linville, but was created, as it were, out of the rough at one stroke, in the same way. It stands on an immense ridge of sand, overgrown with long leaf pine, which, in the form of an unbroken forest, extends over a vast area of ground in every direction, and fairly burdens the air with the fragrant odor of balsam. Attention was first called to the spot by Dr. G. H. Sadelson, who had gone there in search of health; and largely through the influence of the managers of the Seaboard Air Line, it has grown to be one of the most important sanatoriums in the Southern States.

Pinehurst is situated in the same county, and enjoys the same health-giving advantages as Southern Pines in the way of a dry, sandy soil and balsam-laden atmosphere. This resort, the existence of which is due to a wealthy citizen of Boston, Massachusetts, J. W. Tufts, stands in a tract of six thousand acres, still covered, for the most part, with the thick ranks of the original growth of pine. The plan of the resort was drawn by the celebrated landscape artist, Frederick Law Olmstead. Here is found the largest hotel in North Carolina. In addition to a second hotel, there are some fifty cottages, a casino and library, a golf club house, golf links, and an extensive deer park.

One of the most attractive parts of North Carolina is what is popularly known as the "Sapphire Country," a region full of picturesque streams and waterfalls, beautiful lakes and mountain views. In recent years it has been made thoroughly accessible to tourists. Interesting as it was, no suitable accommodations existed for travellers accustomed to the comforts and conveniences of the other Southern resorts; but now, in addition to a number of inns situated elsewhere in this region built according to the most approved models of the present day, and managed in the most modern way, there has been erected on Lake Fairfield one of the handsomest and best appointed hotels in the State. To this hotel there is attached an estate of 26,000 acres, which embraces every imaginable variety of landscape —mountain, valley, stream, open field, and primæval wood. Among other features, it contains seventy-five miles of river and brook especially adapted to many fine species of fish. The streams have been stocked with trout and bass, while the native birds and animals have been protected from depredation; the native woods also have been preserved with great care, but in every direction macadamized roads have been built, permitting the whole surrounding region to be easily explored.

A large number of places in South Carolina have, of late years, become favored winter resorts. Columbia, Camden,

and Charleston, among the cities, draw colonies of strangers who wish to combine the pleasures of town with the advantages of a sunny sky and soft and balmy air. The principal centres, however, are Aiken and Summerville. Aiken has acquired a special reputation for the dryness of its atmosphere; in this respect, it is surpassed only by the resorts among the Rocky Mountains, while it is unequalled by any other resort of the same kind situated in the region east of Mississippi River. The mean temperature throughout the year is only fifty-two degrees. Aiken resembles the celebrated resorts on the European Riviera in possessing many beautiful villas which people of wealth from the North and West have erected to serve as winter homes; here they pass the season, surrounded by all the comforts and luxuries afforded by large fortune. Horses, dogs, golf links, and shooting give a great variety of amusements to the life in the open air, while all the pleasures offered by society enter into the life led indoors. The colony that gathers here every winter and makes Aiken one of the most fashionable resorts in the United States at that season, has set an example likely to be followed to an ever increasing extent as the wealth of the whole country accumulates, and the motives impelling Europeans to seek the Riviera become more influential on our own continent.

Summerville is chiefly known as a health resort; it has acquired this reputation not only from the mildness of its winter climate, but also from the fragrance and freshness pervading it in consequence of the presence of extensive pine woods. Here, on a high plateau, is one of the handsomest and most comfortable hotels in the Southern States. The golf links here are about two and one-half miles in length. Surrounding the inn is a shooting preserve covering over eighteen hundred acres. Packs of hounds are kept here for the chase of the deer and fox.

Georgia affords the same advantages to tourists, whether in search of health or pleasure, as the Carolinas have to offer. Augusta, Savannah, and Brunswick have made special

provisions for the tide of travel southward in winter by erecting hotels modelled upon the best modern lines. Augusta, a city situated in the very centre of the dry and fragrant pine region, has one of the most admirable structures of its kind in the Southern States. Savannah has shown equal foresight in its hotels, and this is also true of Mt. Airy, Tallulah, and Tallapoosa, all of which have become, in recent years, popular resorts during the winter.

The most famous resort in Georgia, however, is Thomasville, which resembles Aiken in South Carolina, in having a large number of beautiful cottages or villas that give the place a social life that is independent of the hotels. Thomasville is chiefly known as a health resort. This is owing to the pine forests in which it is situated, and the peculiar dryness of the air resulting from the presence of so much sand in the soil.

The most celebrated of all the winter resorts in the Southern States are those found in Florida; these have become not only the most famous in the United States, but also among the most famous in the world. Sixty years ago, Florida enjoyed no general reputation for the charm of its climate during the winter; the climate, indeed, had then no effect whatever in promoting the development of the extraordinary natural resources of the State. The creation of winter resorts, whether for the purposes of the pleasure seeker or the invalid, is really, both in Europe and America, the result of influences that have only come into play during a comparatively recent period. As the wealth of the United States increased and the taste for travel grew upon its citizens with the possession of larger means, it was inevitable that the attractions of a land like Florida, whether we consider its climate or its tropical scenery, would draw thither annually a large number of visitors in search of either health or pleasure. The peninsula extends far south of any other part of the United States; indeed, it runs down into the general region of tropical waters to which the favored islands of the West Indies belong. The end of it

is as distinctly a part of the tropics as Cuba or Hayti; the same brilliant skies and the same exuberant, luxuriant plant life distinguish the three alike. The translation from Berlin or London to Nice, Mentone, or Cannes is not more remarkable in the difference of sky, air, and vegetation than the translation from Boston, New York, or Philadelphia to Palm Beach or Miami on the east coast of Florida.

The gateway to Florida is Jacksonville, a city which contains a population of thirty thousand. About thirty-seven miles further south lies St. Augustine, which, with the possible exception of Los Angeles in California, is more widely known as a winter resort than any other spot in the United States, or it might even be said in the western world. Its extraordinary distinction in this respect is derived partly from the fact that it is one of the few towns remaining on the North American continent that retains even a faint aspect of the times of the Spanish dominion. There still floats about it some of the glamour of an age forever renowned for its romantic associations; to its ancient gateways yet cling the memories of that remote period to which the Spanish conquest belongs. But the celebrity of St. Augustine is due at the present time to reasons somewhat more prosaic than this lingering atmosphere of the dawn of American history, with its unsurpassed interest and charm; there are now standing in this city perhaps the three most imposing hotels that have been erected in any part of the world for the accommodation of tourists seeking pleasure or health in a change of climate. No structures for the same purpose equal to them are to be found in Europe. Their splendid courts, lawns, and gardens, their noble style of architecture, and their spacious and highly decorated apartments, place them among the most magnificent palaces that were ever designed for uses not associated with royal or national state and grandeur. They were planned after the Moorish model, and, as time passes, the mellowing and subduing influence of the weather is making more beautiful the tints of their exterior walls, while the charm of their Old World aspect is further

increased by the wealth of tropical and semitropical flowers, vines, and shrubs that embower the surrounding lawns and gardens.

In recent years, Palm Beach, on the east coast of Florida, has acquired extraordinary popularity as a winter resort; it lies very far to the south, and enjoys in even greater profusion than St. Augustine a splendid variety of tropical vegetation, including the cocoanut tree, which springs up in extensive groves in the public grounds and fringes the borders of the different lakes. The principal hotel erected here, in extent, the beauty of its architecture, the ornateness of its interior decorations, and the spaciousness of its apartments, rivals the most famous of the hotels at St. Augustine. There is no establishment of the same kind in the South which is superior to this in the wealth of its surrounding palm and other tropical trees and shrubbery. The many handsome villas at Palm Beach give the place the character of a European winter resort which is not entirely dependent for its attractiveness on hotel life, however imposing the hotel buildings, or lavish the scale of entertainments.

A few years ago, Miami was a small village on the east coast of Florida south of Palm Beach; it even lacked a railway; but, like Palm Beach, it was remarkable for the extraordinary variety and profusion of its tropical vegetation, and the fineness of its long sandy beach. It has now become one of the most popular winter resorts in the State. The completion of a new line has given the town a connection with all the principal railroad systems of the South, while one of the largest and most beautiful hotels in the United States has been erected within its limits.

There are many other resorts in Florida to which visitors from every part of the republic are attracted in the winter season; among them may be named Winter Park, in Orange County, which is seated in a country remarkable for its beautiful lakes and extensive pine woods and orange groves. This region is thought to be especially healthful, and is

sought annually by people suffering from affections of the throat and lungs. Here also are the homes during winter of many Northern families.

Belle Air, on the west side of the peninsula, not far from Tampa, has also become popular in recent years. This part of the State is especially notable for its profusion of tropical growth; the cocoanut and orange trees, the tangerine and grape fruits, the banana and camphor trees, the rubber and cactus plants—all are found here springing up with a vigor and luxuriance unsurpassed even in the West Indies.

Tampa, situated in the same region, though a thriving, active town busily engaged with manufactures and general commerce, is nevertheless a winter resort of growing importance. It possesses one of the most imposing hotels in the entire South. The golf links here are among the most elaborate in the United States, and a racing track has been laid off for the amusement of the guests.

Another feature of the development of the South along the lines of its natural advantages during the season of winter is the extent to which the islands off the south Atlantic coast have come to be owned by clubs or associations composed almost entirely of persons from the North and West, who have bought with a view to converting the land into a hunting domain, and the shores into a fishing preserve; from the furthest northern points on the ocean side of Maryland and Virginia down nearly to the end of the Florida peninsula, the smaller islands have, with few exceptions, been thus appropriated. On many of them handsome club houses have been built, and all the comforts and conveniences of a city club introduced for the use of the members. No other region of the United States offers such opportunities for sport in the field and on the water as the entire south Atlantic coast. This is the haunt in winter of every variety of wild duck found in the East, and also of every variety of wild goose, plover, snipe, sora, and the like; in spite of the merciless slaughter which has been going on among these birds during several hundred

years, myriads still revisit annually the inlets, marshes, and sandy beaches situated along the south Atlantic shores. Wild turkeys still abound in the thickest of the woods, and deer are more numerous to-day than they were at the beginning of the War. As we have shown in a previous chapter, the waters from one end of this coast to the other fairly teem with the noblest kinds of fish to be found within the limits of the United States; there are, indeed, no fishing grounds in the world which surpass these waters in the number of the varieties, in the excellence of their flesh, or in the exciting sport which their pursuit affords.

For many years, the South has aimed to make the most of all its natural advantages for the establishment of summer resorts, but so far its success in this direction is unequal to what has been accomplished by it in using its like advantages for the establishment of resorts for the winter. The explanation of this is that the winter resorts have sprung up under the influence of the patronage of every part of the United States, and, in some degree, of a considerable part of the civilized world. But every division of the Union possesses its own group of resorts for the summer. The Adirondacks, the New England and the Jersey coasts, and the lakes of Wisconsin and Minnesota receive during these months the bulk of the pleasure and health seekers of the northeastern and northwestern parts of our country; the summer resorts of the South are, therefore, practically restricted for their support to the patronage of Southern people. The number of such resorts, however, has increased very rapidly of late years in consequence of that enterprising Southern spirit which is striving to turn every advantage of the Southern States to account; from the Potomac to Huntsville in Alabama, summer hotels are found at every very eligible point in the Appalachian Range.

This infinitely varied chain has at least two climates to offer; namely, the climate of the warmer belt in the spurs and lower plateaus, and that of the colder belt in the upper valleys and on the lofty mountain sides. It passes through

the South from Maryland to Alabama at such a distance from the coast, on the one hand, and from the Ohio and Mississippi valleys, on the other, as to make it equally accessible from either side to persons who wish to escape the heat of the summer. This mighty geological backbone, which crosses so many States, has always been remarkable for the number of its mineral springs; sulphur, lithia, alum, chalybeate, and arsenic—indeed, almost every variety of mineral water is to be found among them. Even during the existence of the slave system, every one of these springs whose water was strong and flow abundant had become an important centre where, in summer, amusement as well as health was sought by thousands of people. There has, of late years, been a more resolute and intelligent effort to develop many of them from the hygienic point of view; the Hot Springs in Virginia, for instance, which compares in the temperature and other qualities of its water most favorably with the best springs of that kind in the United States, has now, after a large expenditure of money on it for purposes of general equipment, become one of the most popular health resorts in America. In the same way, though not to the same extent, the Hot Springs of North Carolina has been greatly improved, and its advantages have been widely advertised. The lithia springs of Virginia and Georgia have also in recent years attracted an increasing number of visitors for the same reason.

The combination of magnificent scenery, such as the mountains of Virginia, North Carolina, and Tennessee have to offer, with a great variety of mineral springs remarkable equally for the strength and volume of their waters, is certain in time to win a patronage for the summer resorts of the South Atlantic States as national and international in its character as that which has brought such extraordinary prosperity to the winter resorts of these States. The Alps and the Rockies alone in Europe and North America surpass this mountain scenery in beauty and grandeur. As to the virtues of the mineral waters, their reputation already

stands high wherever known; if the Southern springs were as accessible to the world as the springs of central or northern Europe, they would annually draw those great crowds of invalids and pleasure seekers which have made the names of Aix, Vichy, Kissingen, and Carlsbad celebrated in both hemispheres.

CHAPTER XXII

EDUCATION

One of the most important of all the changes following the upheaval of the War is that which took place in the system of popular education in the Southern States. There was something in the nature of the old Southern civilization which was as discouraging to the spread of such education, as now understood, as it was to the growth of manufactures. This spirit had its origin first in the physical peculiarities of the large plantation system, which, by its tendency to concentrate the ownership of the soil in a comparatively few hands, had the general effect of dispersing the white population over an area of country out of proportion to its numbers. A public school system will flourish most in a thickly settled community; it will languish most in a thinly settled one, because the remoteness of the school house from the large majority of the pupils necessarily forms a serious, and to some extent an insurmountable, obstacle to its successful working. There was not in the Southern as in the New England and Northwestern States, where the public school system had reached its highest prosperity, a crowded population of small land owners, with villages succeeding each other at short distances; there the number of inhabitants—all white and all free—was so great to the square mile that it required the building of a school house on nearly every hilltop to afford room for the pupils who were seeking to be educated at the public expense. In the

South, on the other hand, the estate of several thousand acres, with the families of the owner and his overseer as its only white occupants, was the general rule, everywhere; it followed that an area of country with radii of many miles was required to furnish a sufficient number of pupils to justify the erection of a public school house; and had it been built, not more than one-half of the white children in so extensive a neighborhood would have had the physical strength to walk, as all the poorer classes would have been forced to do, so great a distance six days in the week.

Secondly, apart from the purely physical obstacles to the success of popular education during the prevalence of the large plantation system, that Southern preference for individual effort as distinguished from coöperative, *i. e.*, the effort of the combined many, upon which stress was laid in the chapter on manufactures, undoubtedly had a considerable influence in checking the growth of any popular sentiment in support of public schools. There was a feeling among the majority of the Southern people that the education of the citizen was the duty of the citizen, and not of the State—that the State was under no more obligation to establish primary literary schools than it was to establish primary Sunday-schools—that the best government was the one which interfered as little in the intellectual as in the social affairs of men, and left to every family the absolute and uncontrolled right to grow up in ignorance or knowledge just as it chose.

A third influence hostile to the success of the public school was the existence of an aristocratic framework of society in most of the Southern States, which spread abroad among the members of the leading class a feeling opposed to the indiscriminate commingling in a public schoolroom of the children of each community, from the highest to the lowest rank in life.

These different influences which, as we will show later on, were very far from preventing a determined effort to establish in nearly all the Southern States a public school

REESE LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA



Floating dock at Algiers, near New Orleans, Louisiana. Battleship *Illinois* in the largest floating dock in America.

system before slavery was abolished, had no effect whatever in fostering among the members of the highest society in these States a low opinion of the value of education. As far as education was to be acquired at the expense of the private individual, no section of the population of the United States held its advantages in juster esteem, or made, if necessary, more sacrifices to obtain it than what may be described as the upper classes of the Southern commonwealths. A very large proportion of Southern families in easy circumstances engaged tutors or governesses for the instruction of their sons or daughters until they reached a certain age, when lessons in more advanced courses were necessary, but the great majority of Southern boys, before leaving home for the boarding academy or the university, were taught in the old field schools in their neighborhood, which served, to a certain extent, in the place of the modern public high schools in the towns and villages—only that the teachers were paid, not by public taxation, but by the individual contributions of the parents and guardians whose sons and wards were receiving an education. These local private schools of the past were sustained by the surrounding planters out of their private means with as much appreciation of their usefulness as the small planters of the present day in the same neighborhoods show for the local public schools by gladly paying their share of the school taxes. The one generation of citizens was not in the slightest degree less enlightened than the other in their opinion as to the value of education—they simply would have differed as to the proper manner of supporting the schools, whether out of the private purse or out of the public.

These old field schools were patronized by the richest class of planters as well as by the class which came next in fortune. This was all the general education, as a rule, that the sons of this less wealthy class obtained; but as many of the teachers were men of fine scholarship, the instruction received from them went very far into the heart of a true education in all its most important branches,—English,

history, the classics, mathematics,—and it even entered the field of the natural sciences. The sons of planters who were in the possession of larger means, after completing the course at the old field school, were sent to an academy, or small college, where they were carried further into the wide domain of learning; some finished their education here, and at once started upon active life; but a very large number passed on to the university, and there pushed their studies into all the highest departments of knowledge.

During the existence of slave institutions, the class that really suffered from the absence of the present system of public education was the poorest section of the whites,—that section which the negroes characterized with so much contempt as the "po' white trash" of the South,—men and women who eked out a meagre and unwholesome existence on the thinnest soil of the coastal plain, the barren ridges of the Piedmont, and in the coves of the mountain ranges.

It would be a gross error to think that the great mass of illiteracy at this time prevailing in all parts of the Southern States among the white people in the lower walks of life was looked upon without any desire to remove it or lessen it by those who controlled the political affairs of these States; there is no record of a single public man of high standing in the South under the old system who planted himself in open hostility to the different measures which, from decade to decade, were adopted by Southern legislatures for the instruction of the bulk of the white population at the public expense. The scheme proposed by Jefferson for Virginia was one of the most comprehensive and thorough for the advancement of popular education which has ever been formulated in modern times,—first, a system of public primary schools; then, a like system of public graded schools; then, a system of public academies; and the understructure, composed of these different stories, one resting on the other, to be crowned by a single university. In the erection of this educational edifice, so well considered in all its parts, the workmen began at the top. Jefferson's general plan

was defeated, although the University built at Charlottesville was established with the understanding that the free school system was to be inaugurated later on. The nearest approach to public instruction at the public expense observed in Virginia previous to the War was an annual appropriation of $45,000 by the legislature "for the schooling of the indigent population" of the State. The good which this appropriation would have accomplished was largely destroyed by the indisposition to proclaim themselves practically paupers on the part of those who might have benefited. In 1841, the counties were empowered by Act of Assembly to establish a public school system; but as the law was not compulsory, their action was not concerted, and education at the public cost failed to become general, although, by the State Constitution of 1850, a capitation tax was imposed for the support of primary and free schools.

In Maryland, a system of public schools was adopted in 1825, a State superintendent appointed, and an effort put forth to carry the system into practice. Three years later, the act establishing it was repealed, on the ground that education at the public expense had proved unsuccessful. Until the beginning of the War, the only schools receiving any support from the State were those known as "private neighborhood schools," some of which were subsidized in a moderate way with public funds.

Education at the public expense made more real progress in North Carolina, previous to 1860, than in any other of the Southern States; this was due largely to the fact that the landowners there came nearer to being a community of yeomen than they were in any other of the older Southern commonwealths. The holdings were smaller, and the number of wealthy planters fewer, in consequence of which there was more of that equality of fortune observed in the rural districts of the North and West during the same period of time. It followed from the universal preponderance of the yeoman class in North Carolina that the framework of its local society was thoroughly democratic; practically,

there were no class feelings to discourage the indiscriminate commingling of children in the school house. The aristocratic tendencies of her neighbors, Virginia and South Carolina, had but a weak hold on the social life of the State. The largest number of pupils attending the public schools in any Southern commonwealth before the War came on were found in this commonwealth; in one year, 1854, they were estimated to be as many as 95,000, which was nearly one-half of the population of the State between the ages of five and twenty-one. In 1860–1861, the report of the superintendent of public instruction showed that North Carolina expended about $278,000 for the education of 150,000 children during four months of the year. There were about 3,488 school districts. This number appears the more remarkable when it is remembered that no general and uniform system of free schools was in operation in the State previous to 1811, and that it was not until 1840 that the laws relating to such schools were made effective in actual practice. The public schools were kept open throughout the course of the War.

A system of free schools was put in operation in South Carolina in 1811, and remained nominally in force until the close of hostilities in 1865. Under the provisions of an act passed in the former year, every white person, wealthy and poor alike, had a right to have his children educated at the public expense. In Charleston, the system proved to be very successful, largely on account of the interest taken in it by a number of influential citizens; but in other parts of the State, it was generally acknowledged to have failed, in consequence of the fact that the ruling class of planters, on whom the people were in the habit of depending for the initiative as to every measure, were not in sympathy with any scheme of popular education. The experiment of free schools was resolutely pressed by its local advocates through a long series of years, but those obstacles to its success, upon which we have already dwelt elsewhere in a general way, were too great to be entirely overcome.

The early constitutions of Georgia declared in favor of a public school system to be supported entirely at the cost of the State, but as time passed on, the popular sentiment calling for such a system declined, until, by 1840, it was content with an act requiring that only the children of the "indigent" should be taught at the public expense. This change of feeling was due to the steady increase in the number of private academies that afforded ample facilities for the instruction of the children of parents in possession of means. These seminaries, which, in most cases, were at least partly supported by public taxation, were generally situated in the towns and villages, and were, therefore, of little use to the poorest section of the rural population, who, under more favorable local circumstances, might have taken advantage of the right allowed them by law to send their children to these institutions for the length of three years. It was not until 1858 that the foundation of a permanent public school system was laid in Georgia by the legislative appropriation of a large sum that was to be paid annually for the establishment of a certain number of free schools in every county. The experiment came to an end amid the confusion and ruin attending the last years of the War.

In 1849, only four years after Florida was admitted to the Union as a State, its Assembly passed an act providing for the establishment of common schools in which white pupils might be educated at public expense. At the end of ten years the appropriation for their support did not exceed $6,542.60, while the number of children in attendance was estimated at only two thousand. There were, however, several academies to the maintenance of which the State contributed every year.

At an early period in the history of Alabama, valuable lands were set aside for the support of a system of public schools, but it was not until 1854 that the State legislature established it on a firm footing by the creation of a considerable fund, which was to be devoted entirely to meeting

the expense that would be entailed. A superintendent for the whole commonwealth, three commissioners for each county, and three trustees for each township were appointed to direct and control the general and local affairs of the schools. In 1856, one-fourth of the white school population of the State were enjoying the benefit of education at the public expense, but two years later we find that nearly one-half of the entire cost of the system was paid by the parents of the children in attendance. The State funds became unavailable, and the public schools, in consequence, soon began to languish.

The earliest attempt to establish a uniform system of public education in Mississippi was made in 1846, in which year school commissioners were appointed in each county of the State, who were empowered, with the consent of the resident heads of families, to lay a special tax for the support of the local public schools. They were also placed in charge of the lands derived from the national government, which had assigned the sixteenth section of all public lands in the State for school purposes. This scheme for popular education proved unsuccessful because it was simply permissive in its character; each township was left to decide for itself whether it should participate or not, and thus the scheme itself could be rejected or accepted according to local sentiment. By 1851, the public school law had been to all intents repealed, and practically had no further existence until 1867.

In Kentucky, a permanent school fund was created by an Act of Assembly in 1850 for the support of a system of free schools. As early as 1837–1838 a large sum had been appropriated for this purpose to be distributed wherever the people should consent to supplement it with a local tax, but it was not until nearly fourteen years had passed that the public schools were established on a sound footing by a clause in the new constitution of the State. The school fund consisted of over $1,500,000, and the interest on this sum was disbursed without conditions that would have made local taxation necessary.

Tennessee received its share of the public lands appropriated by Congress for the advancement of popular education in the different States, but although many attempts were made in this commonwealth to set up common schools, no real success seems to have attended them until the great changes which the War brought about took place. On the other hand, in Louisiana, similar efforts appear to have come nearer to accomplishing the purpose in view; the constitutions adopted in that State in 1845 and 1852 both authorized the establishment of a complete system of public schools, which was to derive its support from legislative appropriations. The constitution adopted in Texas in 1845 embraced a clause declaring that the common school system must be maintained by general taxation, and providing that one-tenth of the annual revenue of the State should be set aside for this use. A large area of public lands was also reserved for the support of the free schools.

This brief account of popular education in the Southern States during the existence of slave institutions shows that each of these States had taken steps to set up free schools, but that, with the probable exception of Kentucky and North Carolina, not one had in full operation a system approaching in general usefulness the system which is now under way in all these States, the wealthiest and poorest alike, for the benefit of the children belonging to every section of the population. Every one of these commonwealths possessed a circle of excellent private schools, academies, and colleges supported by private subscription—some of the cities, like Charleston and Mobile, had established a number of successful public schools.

It was practically not until after 1864 that any of the Southern States inaugurated a complete round of public schools, such as we now find in operation in each of them. We say practically, for West Virginia, which ceased to be a scene of hostility after the first years of the War, adopted a general free school system as early as 1863; Arkansas imitated its example in 1864, at which time a

large division of the State's area had fallen under the control of the Federal arms. In the same year, Louisiana, having passed into a similar condition of subjection, introduced a like clause into its new constitution; Maryland, brought under the same influences, followed in the footsteps of Louisiana a few months later. In 1865, when the War had come to an end everywhere, Florida declared in its new constitution in favor of the establishment of a public school system; and ample regulations with the same end in view were made in the new constitution of Texas, framed in 1866. Alabama imitated Texas's example in 1868; and in the same year, Georgia and South Carolina adopted similar provisions. Mississippi and North Carolina also in 1868 inaugurated a system of public schools, and in 1869, Virginia took the same step.

Thus it is evident from this short enumeration that all the Southern commonwealths, with the exception of Kentucky and Tennessee, had, previous to 1870, by special clauses in their new constitutions framed to readjust the relations of these States to the new conditions succeeding the War, laid down a plan for the establishment and support of a free school system within their respective borders.

Several of these States, in the interval between 1863 and 1885, drew up and put in force more than one body of fundamental laws; Maryland, for instance, framed a second constitution in 1867, Florida in 1868, Texas in 1869, West Virginia in 1872, Arkansas in 1874, and Alabama in 1875. In 1876, Texas adopted a new constitution for the third time in the course of ten years, and North Carolina for the second time in the course of six. In 1877, Georgia adopted a new constitution for the second time in an interval of nine years, and Louisiana, in 1879, for the second time in an interval of fifteen, while Florida, in 1885, adopted a new constitution for the third time in the course of twenty years.

The explanation of the enactment of so many new constitutions in a period of such short extent comparatively in the history of a people, is to be found in the changes that

followed the close of the era of Reconstruction. The first fundamental laws adopted by the Southern States after the close of the War were adopted by the very mixed element represented by the negro, the "Scalawag" and the "Carpet-bagger"; as soon as the white citizens of these States recovered control of public affairs, conventions were called, the constitutions of the Reconstruction times abolished, and new constitutions framed and proclaimed. Virginia was almost the only Southern State which was content to retain for more than a generation a body of fundamental laws which had their origin in musket, bayonet, and drum, and which reflected, not the genius of its own people, but the temporary domination of white aliens and the former slaves.

The most influential men among those who drew up the constitutions of the Reconstruction period had, as a rule, come into the Southern States from the North, and they brought with them those general ideas as to public education which prevailed universally in that part of the Union. But, as we have seen, there was not a single State in the South which had not, in the times of slavery, persistently striven, during a long course of years, to keep in force a system of schools for the people at large, and these attempts had been unsuccessful only on account of special influences springing from the peculiarities, physical as well as social, of Southern communities. The clauses in the Reconstruction constitutions declaring for popular instruction at the public expense, were, in many cases, if not in all, substantially the same as those clauses in the constitutions of the slavery period which made a like provision. The difference consisted not in the character of the respective clauses, but in the character of the respective societies in which it was sought to enforce them.

Very different, indeed, was the land in which the Reconstruction constitutions, with their provisions in favor of public instruction, were proclaimed—very different in a thousand ways, palpable as well as subtle—from that land

in which the old constitutions had been in force! Not only had the aristocratic framework of Southern society been destroyed by the abolition of slavery, but also the rural gentry, who had been more disposed to encourage private than public education, had, as a class, been ruined and dispersed; a period of general equality, whether in social consideration or fortune, had set in, and the dependence of the members of every community upon each other had in consequence become more marked. The War, indeed, by bringing the Southern people into thorough concert, not only of sentiment, but also of action, had breathed into them a spirit of coöperation which had never, to the same degree, animated them before, and the influence of which survives to the present day.

When the new system of public schools was inaugurated after the proclamation of the new Southern constitutions, it might easily have been predicted from a knowledge of the genesis of these changes that, although this system would have to contend for a time with the transmitted influences of old prejudices and conflicting interests, nevertheless, in the end, which would not be long deferred, it would take firm and deep root in the soil, now rendered, by altered private fortunes and a revolutionized society, far more congenial for the plant than it had been in the days of slavery. The great obstacle created by a comparatively sparse population would remain, it is true, but this disadvantage would inevitably decline in force as the subdivision of the soil went on and the emigration of the whites fell off, now that the drift was toward very small and not toward very large estates. In the light of all this, there was nothing strange in the fact that the constitutional provisions in support of public instruction at the public expense adopted by the Southern white people as soon as the Reconstruction period ended were just as advanced in spirit and just as fully in touch with the principle of popular education as those provisions of a similar nature which had been embodied in the constitutions framed by aliens. This was the one branch

of the policy of that dreadful era that was continued, not because the merits of a public school system had during that interval been impressed upon the mass of the Southern people for the first time in their history, but because this system, having in vain struggled for a prosperous existence under the former régime, could flourish without any interruption under the new social order and the new economic conditions prevailing in the Southern States.

CHAPTER XXIII

EDUCATION—(Continued)

It is of consequence to examine the principal important educational provisions of the Southern constitutions adopted during the first twenty years following the close of the War. This was perhaps the most vital period in the history of public instruction in the Southern States, for it was during this period that the present system was carefully framed and put in force; and it was during this period also that it overcame all the most serious obstacles in the path of its advance, whether arising from surviving prejudice and hostility, from ignorance, or from the impoverished condition of the people.

In West Virginia the constitution of 1863 strictly defined what should be set aside as the fund for the support of the public schools. It was to consist of (1) all money derived from the sale of waste lands and forfeited estates; (2) all gifts to the commonwealth for educational purposes; (3) the new State's share of the literary fund belonging to Virginia before its division; (4) the property of all persons without heirs dying intestate; (5) certain taxes imposed on newly created corporations; and finally, the sums paid by persons for exemption from military service. The money annually arising from these sources was required to be carefully invested and the income alone devoted to the maintenance of the public schools. By the constitution of 1872, the governor, superintendent of public instruction, auditor, and treasurer of the State form the Board of the School

Fund, with full power in its management. The State capitation tax was also by this second constitution annually added to the amount of this fund.

In Louisiana, by the constitution of 1864, the school fund embraced the proceeds from the sale or rental of all lands which the Federal government had granted, or should hereafter grant to the State for educational uses; and the like proceeds of property falling into the possession of the commonwealth on the decease of persons who had died without will and heir. The State paid interest on this fund at the rate of 6 per cent; and this income, together with the interest of the trust fund deposited with Louisiana by the United States under Act of Congress in 1836, was expended in the support of the public schools. By the constitution of 1868, the school fund was further increased by the sales or rents of all property that had been given to the commonwealth for educational purposes, or without any purpose being defined. One-half of the proceeds of a general capitation tax was also reserved for the same special use.

By the constitution of Arkansas adopted in 1864, all moneys accruing from the sale of lands granted to the commonwealth by the national government for the advancement of education, or which had been derived from private generosity, went to form the perpetual school fund, on which the State paid interest in support of the public schools. The constitution of 1868 swelled the volume of this fund by diverting to it the entire amount of all fines, penalties, and forfeitures, unclaimed dividends, or distributive shares of the estates of deceased persons; and also the moneys coming in from the sales of escheats, and from public lands received from the United States without any provision as to the purpose for which they should be held. In addition, the proceeds of a general capitation tax were devoted to the same general object. The school fund was required to be invested in national bonds.

Maryland, by the constitution of 1864, provided for the creation of a permanent school fund by imposing an annual

tax of not less than five cents on every one hundred dollars' worth of taxable property found in the State. This tax was to be continued until the amount accumulated in this way should reach a total sum of $6,000,000, the interest on which alone was to be expended in support of the public schools.

By the constitution of 1868, the sources from which Florida's perpetual school fund was to be derived were much more clearly defined than they had been by the constitution of 1865, in which only very general terms had been used. This fund was to consist of the proceeds in part of the sales of the State's public lands, and in whole of the sales of lands granted by the Federal government for educational purposes; and also of all moneys obtained (1) from the conversion of property escheated or forfeited; (2) from the fines paid for exemption from military service; (3) from the fines collected under penal laws; (4) from that portion of the capitation tax set aside for the advancement of public instruction; and finally, from bequests and devises to the State for the promotion of education, and from those which had failed to define the testator's purpose. By the constitutions of both 1868 and 1885, the school fund could be swelled by special legislative appropriations.

The constitution of Texas adopted in 1866 provided that, in addition to all the other property set apart under the terms of previous constitutions as a permanent school fund, the "alternate sections" in all public grants of land to railroad companies, or other corporations, for purposes of internal improvement and the like, should be reserved for the advancement of popular education. The proceeds of the sales of the public lands which the State had given to each county for the support of its public schools were also to be considered a part of the State's perpetual school fund. By the constitution of 1869, the legislature was directed to add to this fund the proceeds of the sales of all the public lands of the commonwealth as these lands passed

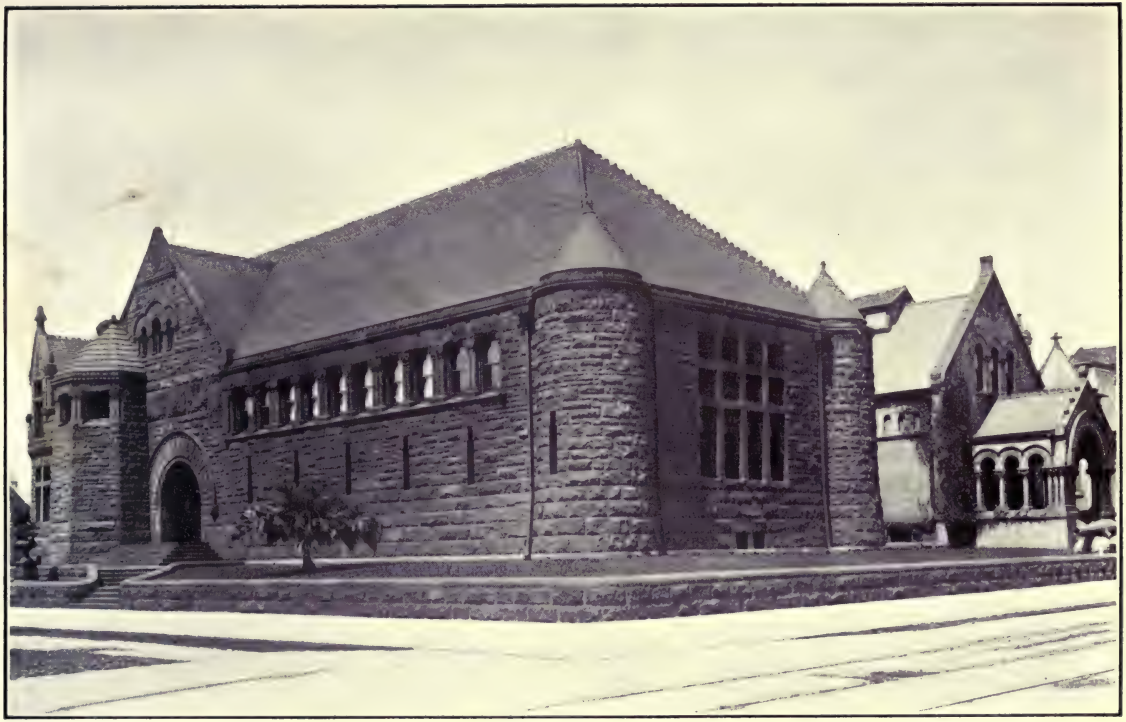
into the hands of private purchasers—a provision for public education which is entirely unequaled in magnitude and unsurpassed in nobility of spirit in the history of the other States of the Union.

The constitution of Alabama, as amended in 1868, provided that the permanent school fund of the State should consist of the proceeds of all lands received from the Federal government for the advancement of education, or of lands and other property given by private persons for the same purpose, or without any purpose being mentioned; of all moneys obtained from citizens in consideration of exemption from military service, or which had come into the possession of the commonwealth from the sale of the estates of persons who had died without will and heir. Only the interest accruing from this total amount was to be used for the maintenance of the public schools. No substantial additions were made to the fund by the provisions of the constitution of 1875.

In Georgia, a general perpetual fund, the interest of which alone was to be expended for the support of popular education, was not established by the constitution of either 1868 or 1877.

The permanent school fund of South Carolina, by the provisions of the constitution of 1868, was to consist of the proceeds of all lands which the Federal government had granted, or should hereafter grant the State for the promotion of education; or of lands and other property received from private individuals for the same purpose, or without any purpose being defined. The estates of persons dying intestate without heirs were also appropriated for the increase of the fund.

In Mississippi, the permanent school fund, by the provisions of the constitution of 1868, was to consist of the following:—(1) the proceeds of the sales of lands which the Federal government had granted the State for educational purposes; (2) the proceeds of the sales of swamp lands owned by the commonwealth; (3) moneys obtained



Howard Memorial Library and Confederate Memorial Hall, New Orleans, Louisiana.

E LIBRARY
OF THE
IVERSITY
OF
LIFORNIA

from the sales of all lands escheated or forfeited for taxes; (4) the sums received from licenses for the sale of intoxicating liquors; (5) all fines for breaches of penal laws; (6) also all fines paid in return for exemption from military duty; (7) the Congressional township funds, and the proceeds of the sales of lands belonging to these funds; and finally, all moneys bequeathed to the State for the advancement of popular education.

The permanent school fund of North Carolina, as defined by the constitution of 1868, was practically the same in its composition as that of Mississippi as already described. The constitution of 1876 made no change in the character of the fund.

The principal part of the permanent school fund for which provision was made in the first constitution adopted by Virginia after the close of the War, was what was known as the "literary fund." By the fundamental law of 1869, the interest on this amount, which had long been in existence, was reserved for the support of the public schools of the State. The permanent school fund consisted further of the proceeds of all lands granted to the commonwealth by Congress for educational purposes; of all escheated, waste, and unappropriated soil; of all forfeited property; and of all fines imposed under the penal statutes.

In addition to the annual interest derived from the perpetual school fund which nearly every one of the Southern States had created, each of these commonwealths provided in its new constitutions for raising a large sum yearly by direct taxation for the maintenance of its public school system. In some of the States, as we have seen, a capitation tax was levied and appropriated for the increase of the permanent fund; in others, however, this important tax was expended along with the general amount annually collected for educational purposes. In West Virginia, a general tax was imposed on persons and property for the support of free schools; and so also in Louisiana, but with the provision that it was not to exceed in any one year six mills on each

dollar of assessed values. In Maryland, the general taxation for public education was required to be kept within ten cents on every hundred dollars' worth of property, while in Florida, the limit was fixed at one mill on every hundred cents. The constitution of Texas adopted in 1876 provided that one-fourth of the general revenue of the commonwealth and the proceeds of a poll tax on every adult male should be reserved for the support of the public schools. In Alabama, the amount derived from a poll tax of $1.50, and one-fifth of the aggregate annual income of the State was appropriated for the same purpose. In Georgia, a special tax on shows and exhibitions, and on the sale of spirituous liquors, together with a poll tax, and the proceeds from the commutation of military service, were supplemented by general taxation in support of the public schools. The constitution adopted in this State in 1877 provided that the total sum obtained from these sources should be increased by a tax on domestic animals that, from their nature and habits, were destructive to other property. In South Carolina, the interest from the permanent school fund was swelled by a general levy; and also by an annual capitation tax; and similar constitutional provisions were in force in Mississippi. In Virginia, besides a capitation tax, a general tax, not exceeding five mills on the dollar, was imposed for the support of the public schools; each county and public free school district in the State possessed the right to raise additional sums for the same purpose.

Detailed regulations were adopted in all the Southern States for the management of the general affairs of the public schools. In West Virginia, for instance, a general superintendent of public instruction for the commonwealth at large and a superintendent for each county were chosen by the people, while the voters of each township were empowered to select trustees for the schools within its limits. By the constitution of Louisiana, framed in 1864, provision was made only for the election of a general superintendent of public instruction; and the constitution of 1868 also

went no further. There was no clause in the constitution of Arkansas, proclaimed in 1864, providing for the choice of such a superintendent, but the defect was amended in the constitution of 1868. The constitution of Maryland, adopted in 1864, left the appointment of a State superintendent to the governor of the commonwealth; the State Board of Education consisted of this officer, the lieutenant-governor, the Speaker of the House of Delegates, and the State superintendent of public instruction. This board selected the school commissioners for each county. In Florida, by the constitution of 1868, the State superintendent was to be appointed by the governor, and the same official also possessed the right to name the county superintendents for a term of two years; but by the provisions of the constitution of 1885, these officers were to be chosen by popular vote. In Texas, by the constitution of 1866, the governor was empowered to appoint the State superintendent, while the Board of Education was to consist of the governor, comptroller, and superintendent of public schools for the commonwealth at large. The constitution of 1869 authorized the legislature to divide the State into school districts, each of which was to be subject to the supervision of a board of school directors with the fullest control over all the schools, schoolhouses, and school funds within their jurisdiction. By the constitution of 1876, the secretary of state was substituted for the State superintendent of public instruction in the Board of Education. The constitution of Alabama adopted in 1868 provided for the election of a State superintendent of the public schools; and the Board of Education was to consist of this superintendent and two members chosen in each Congressional district. The governor of the commonwealth, though a member, *ex-officio*, of the board, could cast no vote. The board itself enjoyed full legislative powers over the educational institutions of the State.

In Georgia, the constitution adopted in 1868 provided simply for the appointment by the governor of a State school

commissioner. On the other hand, the State superintendent of public instruction in South Carolina, by the terms of the constitution adopted in 1868, was chosen by popular vote. The citizens of each county were also empowered to elect a commissioner for the local schools; and these county commissioners made up the State Board of Education, of which the State superintendent was also, *ex-officio*, a member. In Mississippi, under the terms of the constitution of 1868, the State superintendent of public instruction was chosen by the people; this superintendent, together with the secretary of state and the attorney-general, formed the State Board of Education, which had the power to appoint a superintendent of schools for each county. No changes in this respect were made by the constitution framed in 1890. In North Carolina, the State superintendent was elected by the people under the provisions of the constitution adopted in 1868, and the Board of Education consisted of this superintendent, the governor, lieutenant-governor, secretary of state, treasurer, auditor, superintendent of public works, and attorney-general. In Virginia, by the terms of the constitution of 1869, the State superintendent of public instruction was to be chosen by the legislature, and the Board of Education was to be composed of the superintendent, the governor, and the attorney-general, who were empowered to name the county superintendents.

In Louisiana, at first, all children between the ages of six and eighteen years were considered to be legally eligible to enjoy the benefits of the public schools, but in this State, at a later date, as well as in Georgia and North Carolina, the school age was extended so as to embrace the period from six to twenty-one years. In South Carolina, attendance between the ages of six and sixteen was compulsory, while in Arkansas, the school age was between the years of five and twenty-one; and the same limit prevailed in Mississippi, and also in Virginia. It was only in South Carolina that it was required by any constitution, even of the Reconstruction era, that the public educational institutions of the

commonwealth should be open to all the children without regard to race or color—a provision, which, if it had been generally enforced throughout the Southern States, would have at once destroyed the public school system; even in South Carolina, which at the time this constitution was promulgated was under the control of the negro "Carpetbag" government, it was found impossible to carry the regulation into practical effect.

This brief examination of the constitutions of the different Southern States adopted previous to 1885 shows that the most careful provision was made in them all for the establishment and maintenance of a system of public education. The more minute regulations that each of these States put in force, which it is unnecessary to dwell on here, were such as had been largely suggested by the long experience of the Northern communities, but modified by special conditions prevailing in the Southern. When we remember that it was not until 1880 that the South really began to recover from the destructive effect of the periods of the War and Reconstruction, it reflects very great honor upon her people that they not only continued the system which had been adopted in substance from the old Southern constitutions by the "Carpetbag" governments, but also advanced it in a few years to a very much broader plane of usefulness. Ample provisions were made for meeting the cost of public instruction by public taxation, and for the wise management of the schools and school funds by the appointment of a number of officers and boards who represented the very best personal material the Southern communities had to offer. None of the constitutions framed by the white people alone, with the exception of the one adopted by Texas in 1866, shows the slightest disposition to leave the education of the blacks to be carried on with funds derived from negro taxpayers alone. The clause appearing in the first constitution which Texas framed after the close of the War was not retained in the subsequent constitutions of the State. The broadest catholicity of spirit as to

both races is revealed in the educational provisions of the Southern fundamental laws. While illiteracy still prevails to a lamentable extent in the South, and the working of the public schools is still, in many particulars, defective, the general results which have been accomplished in the face of great obstacles to success, are among the noblest evidences of the recuperative power of the Southern people; of their ready adaptability to new and trying circumstances in their life as a community; and of their determination to lift their part of the Union to the level of the highest achievements in every branch of civil affairs.

CHAPTER XXIV

EDUCATION—(Continued)

In a general way, it may be said that one of the most remarkable characteristics of the public school system of the Southern States at the present day is the fact that in Kentucky and West Virginia alone a law is in force making the attendance of children in the public schools compulsory. The lack of such a regulation, which has done so much to narrow the usefulness of the system, had its origin in that peculiarity of the Southern people already referred to, namely, their insistence on the right of individual initiative. It is claimed that compulsory school laws are repugnant to the spirit of American institutions, it is certainly repugnant to that spirit of the South which has survived the plantation life of the past with its practically unrestricted freedom of action in nearly everything relating to the welfare of each person. There are numerous indications, however, that, under the influence of the altered conditions in the Southern States, which have already succeeded in so many directions in curtailing the undue independence of the mere individual, a wiser view is beginning to prevail as to the expediency of adopting a compulsory attendance law. The idea is becoming prevalent that such a measure is called for by the best interests of the whole community. As we have said, Kentucky and West Virginia require the attendance at school of all children of the prescribed age. Some years ago, the sentiment of the people of North Carolina was fully

canvassed by the Bureau of Labor of that State, and it was found that the large majority of the answers were highly favorable to compulsory education. Such, indeed, is the general attitude of a multitude of thoughtful citizens in all parts of the Southern States to-day, and in time, their views will be embodied in the statutes of their respective commonwealths. Missouri and Oregon are the only American communities situated beyond the borders of the South which have so far failed to adopt a compulsory attendance law.

What is the extent of the illiteracy prevailing in the South among individuals of both races at the present day? The face of the reports does not appear, at first sight, to be highly commendatory of the work of the public school system in the Southern States since the War; for from these reports we learn that there are in these States now as many white illiterates alone as there were in 1850. When, however, we recall the impoverishment that fell upon the classes who were able to educate their children in private schools in slavery times, we may well ask, what would be the degree of illiteracy in the South to-day if the public schools had not been established? The illiterates of both races would probably be treble the number existing in 1850, counting whites and blacks in that year alike; it is in the light of this probability that we must measure the good which the public school system has done. While the extent of illiteracy is still far greater in the Southern States than in any other division of the Union, there are circumstances which explain this condition and also excuse it, especially if we bear in mind the fact that the proportion of Southern persons unable to read is steadily diminishing.

The highest degree of illiteracy in 1890 prevailed in Louisiana and South Carolina, while North Carolina, Georgia, and Mississippi followed at a short interval. Moreover, 30 per cent of the population of the Southern States in this year could neither read nor write.

Happily, the census of 1900 reveals the fact that there has been a marked reduction in Southern illiteracy since

1890. By its light it will be seen that North Carolina now contains the largest number of persons who can neither read nor write, and yet even in this State the extent of illiteracy has been diminished from 36 to 23 per cent of the population of the State. Louisiana and South Carolina, which in 1890 were the first of the Southern States in degree of illiteracy, after an interval of only ten years show a falling off in the number of their inhabitants unable to read or write that amounts in the case of one to 26 per cent, and in the case of the other to 27. The decline in illiteracy in Mississippi during the same period was estimated at 28 per cent of the population, and in Georgia at 24. Comparing the statistics of illiteracy for 1890 and 1900, it will be found that the number of persons in Alabama, North Carolina, South Carolina, Virginia, Georgia, Louisiana, Arkansas, Tennessee, Texas, Mississippi, Maryland, and Florida able to read or write increased in this short interval 17.3 per cent, which is tantamount to saying that the extent of the illiteracy fell off from 32 per cent in 1890 to 14.7 in 1900. When all the difficulties to be overcome before this result could be accomplished are recalled, such a showing constitutes a very high tribute to the energy and intelligence of those who are in charge of the Southern public schools. It is reasonable to infer from such an exhibit that illiteracy in the Southern States will steadily decline in the future until it has been reduced to a point almost as low as that observed in the most prosperous communities of the North; this, however, cannot be expected until the Southern people have so increased in number that convenient school facilities can be offered even in the remotest neighborhoods. One explanation of the greater degree of illiteracy in the Southern than in the Northern States at the present time is to be found in the sparseness of the Southern rural population, which, of course, diminishes the number of public schools, and, in doing so, makes it the more difficult for all the children in the rural districts to attend; the consequence is that in many of these districts—and practically

as yet the South is composed of country districts—the children who live at a distance from the nearest schoolhouse are deprived of the chance of acquiring even the rudiments of education, or acquire them so imperfectly as to find them of little value in life.

In endeavoring to overcome this evil of illiteracy, each Southern State has two great obstacles to surmount—first, comparatively narrow financial resources; secondly, a rural population so widely scattered in nearly every district that it is practically impossible to afford every child the ordinary facilities for education at the public expense. It is impossible to estimate exactly the number of parents who do not send their young daughters to the public schoolhouse, because in going to and coming from it, along the lonely country roads, they would run the risk of nameless outrage, perhaps of death, at the hands of lawless negro vagrants; nor can we estimate fully the number of Southern children of both sexes, who on account of their father's poverty, have to remain away permanently from the public schools because forced to work throughout the day to aid in the support of their families.

There were, in 1899–1900, over eight million children of school age living in the Southern States, of whom nearly five million were enrolled, and about three million in daily attendance in the public schools. The average length of the public school term in these States for the year 1899–1900 came to 105.5 days, which represents an increase in the duration of the annual session since 1870–1871 of about eleven days.

The number of days of instruction in the public schools to the entire school population during 1899–1900 was, on an average, about forty-one; and the average number of days of attendance in the schoolhouse to the entire enrollment of pupils about sixty-seven. Between 1865 and 1870, the whole length of time which each individual of the school population spent in the public schoolroom was, on the average, restricted to about one year and fourteen one-hundredths

of a year, but between 1870 and 1900 the length of time was extended to about three years.

According to school statistics, the State that increased the length of its school term most in the interval between 1870 and 1900, was Georgia, which, starting with a term of only fifty-nine days, has added nearly fifty-eight to it, until now the school term in this commonwealth lacks only four days of being equal to that of Louisiana, the foremost among the Southern States in this respect. In the course of the same interval, North Carolina, which started with only fifty days, added but eighteen to its school term, and Tennessee but twelve. Maryland increased its term from 183 to 188, Virginia from 93 to 119, West Virginia from 77 to 111, Kentucky from 110 to 115.4, Alabama from 66.5 to 100. On the other hand, Mississippi began with a school term of 110 days, which has fallen off to 101.6, while in Texas the school term has dwindled from 140 days to 111.5, the most remarkable decline in the history of the South during the same period. In Florida, too, the school term has been curtailed; and also in Arkansas, though to a smaller extent than in Florida. In South Carolina the falling off amounted to about seventeen days.

In the average number of days' instruction in the public schools for every child, five to eighteen years of age, in 1898–1899, Maryland led with 69.8 days, while West Virginia followed, at a short interval, with 61, and Kentucky and Alabama with 53.9 and 53.2 respectively. The States possessing the least creditable record in this particular were Arkansas and North Carolina; the average number of days' instruction to the entire school population in the former commonwealth, in 1898–1899, was only 27.8, while in the latter, the average number was even lower, namely 22.6. The next smallest is observable in the case of South Carolina, where the average number was 33.2.

When we come to inquire as to what was the average number of days of attendance to the entire enrollment of pupils in each of the Southern States, it will be found that

Maryland also led in this respect, while Louisiana followed Maryland at a short interval. This superiority on their part was probably due to the fact that the two largest cities in the South are situated within their borders. Texas came third in the list, Alabama fourth, and West Virginia fifth. In North Carolina, the average number of days of attendance to the entire enrollment was the smallest recorded in the South; it was only 36.3 days, while the average number in Arkansas, the next smallest, was 43.3. The third State in this respect was South Carolina, with 59.9 days.

In 1900, there were 106,967 persons engaged in instructing the children who assembled daily in the public school rooms of the South; of these, 48,285 belonged to the male sex, and 58,682 to the female; in other words, the female teachers outnumbered the male by at least 10,000. In Texas, which of all the Southern States possessed at this time the largest body of men and women employed in this profession, the work in the public school room was almost equally divided between the members of each sex, while in Maryland, the proportion of female teachers was nearly double that of the male. This was also the case in Virginia. In Alabama, the number of female teachers was more than double the number of the male. On the other hand, in Arkansas and West Virginia, the proportion of male teachers was very much larger than the proportion of female, but, with the exception of Tennessee, in which State the male instructors had a small majority, these were the only two Southern commonwealths in which in 1900 the number of men among the teachers was greater than the number of women. The reasons for the disparity in the proportion of male and female instructors will be dwelt on when we come to describe the public school systems of the whites and blacks separately.

In 1899–1900, $26,274,888 was expended for the support of the public schools of the Southern States; of this sum, $20,465,916 was the amount required for the payment of the officials and teachers engaged in carrying on

the work of the system. The average salary of the latter by the month is now about $31.75.

The preceding details have related wholly to the public common schools. It will be of interest to inquire as to the number of teachers and pupils to be found in the public high schools of the South in 1900, and also the number to be found in the public normal schools in the same year.

According to the figures before us, there were in the Southern States, in 1900, 1,096 public high schools, in which 1,561 men and 1,143 women were engaged in instructing 24,678 male and 37,058 female pupils. Georgia and Texas led in the number of institutions of this kind which they possessed, and also in the number of teachers employed. In number of pupils, Kentucky and Tennessee followed Georgia and Texas at a short interval, but at a longer one in number of schools. Mississippi had nearly the same number of public high schools as Tennessee, but fell behind that State in number of pupils by at least fifteen hundred. South Carolina possessed thirty-four schools more than Kentucky, and yet she had in 104 institutions of this kind about fifteen hundred students less than Kentucky had in her seventy. And the like proportion distinguished the same State when compared with Tennessee in number of pupils; in 101 public high schools, the latter commonwealth counted 5,422 students, while in 104 South Carolina could count only 3,998. Virginia possessed exactly the same number of public high schools as Kentucky, but the number of her pupils as compared with the number in that State was about one thousand less. Alabama possessed thirty-eight fewer public high schools than Mississippi, and yet the number of pupils in each of these commonwealths was nearly the same. A like disparity prevailed more or less throughout the entire list.

North Carolina, in 1900, possessed not only the smallest number of public high schools, but also the smallest number of students; the total number of her institutions of this kind was only twenty-one, and of pupils only nine hundred

and forty-three. West Virginia followed with thirty-two schools and 1,955 pupils, while Florida came third, with 33 schools and 1,503 pupils.

The public high schools are most numerous in the States containing the greatest number of cities and towns, as it is only such centres of population that can furnish such institutions with the necessary body of pupils, as well as the required financial support. The fact that there are very few large towns and cities in North Carolina, West Virginia, and Florida, is one explanation of the small number of public high schools found in these commonwealths. The superiority of Georgia and Texas in the latter respect is due in part to the vast area of these States; especially is this true of Texas, out of which four or five great commonwealths could be carved; but it is also due to the number of important centres of population which both contain.

The numerical inequality in favor of the male teachers in the public high schools of the South is not so conspicuous as the inequality in favor of the female to be observed in the Southern common schools—the male instructors in the former institutions outnumber the female by about four hundred. In the public normal schools, the numerical difference is not so striking—in these schools, there were, in 1900, 143 male instructors and 153 female. The inequality of the sexes in mere number of pupils receiving their training as teachers in the same schools was much more remarkable—there were 1,796 male students and 2,475 female.

Texas, which, as we have seen, had, in 1900, the greatest number of public high schools, with the largest attendance of students, stands on a footing of equality with Alabama, West Virginia, and Florida in the number of its normal schools; these four commonwealths occupy the lowest place in this respect in the list of Southern States—each possesses only two public institutions for the training of teachers. In the two normal schools of Alabama, however, 562 students were enrolled in 1900, which was 178 more than, during

the same year, had entered the six normal schools of West Virginia, Florida, and Texas taken together; Florida in 1900 was educating in her schools of this character only 76 students, West Virginia only 132, and Texas only 176. On the other hand, North Carolina, which had in the same year such a small number of public high schools, possessed seven public normal schools, in which 490 students were enrolled; Arkansas possessed six, in which there were 498 students; Kentucky followed next with seven normal schools and 752 normal students. Tennessee led all the other Southern States both in number of institutions of this kind and in number of pupils—there were in this commonwealth in 1900 twelve public normal schools and 1,005 normal students.

There are numerous schools, colleges, and universities in the Southern States that have no connection with the public school system. Let us inquire first as to the private secondary and normal institutions. We find that there were in the Southern States, in 1900, 780 private secondary schools, in which 1,310 men and 1,504 women were engaged in teaching 20,858 male pupils and 19,872 female. North Carolina, which fell behind all the other Southern commonwealths in the number of its public high schools and in the general literacy of its population, according to the census of 1900, leads all the other Southern States in the number of its private secondary institutions, in the number of instructors, both male and female, employed in them, and in number of pupils enrolled; there were in this commonwealth 122 such schools, with 372 teachers and 6,487 students. In Tennessee, which ranks in all these respects nearest to North Carolina, there were, in 1900, 99 private secondary institutions, in which 311 men and women were engaged in instructing 5,549 pupils. Texas, which stood third in the list, possessed 62 private secondary schools, with 246 teachers and 4,909 pupils. Kentucky, though superior to Texas in its number of the like schools and teachers, had nearly 800 pupils less.

Turning to the private normal schools, we find that there were in the Southern States, in 1900, 62 institutions of this character, in which 133 men and 153 women were engaged in teaching 2,096 male students and 2,475 female. The State having the largest number of private normal schools was Tennessee; it possessed twelve, in which thirty persons were employed in instructing 1,005 students. Alabama possessed only two, and yet the pupils in these two institutions were 562 in number, which was over one-half the number receiving their training in the twelve like institutions of the commonwealth first named. The same number of men and women, lacking one only, were employed in teaching these 562 pupils as were employed in teaching the 1,005 enrolled in the twelve private normal schools of Tennessee. The students in the seven private normal schools situated in Kentucky numbered 752, which was the largest enrollment, omitting Tennessee, to be observed in any of the Southern States. Arkansas occupied the fourth position; its six private normal institutions had, in 1900, an enrollment of 498 pupils.

The whole number of students, both black and white, receiving instruction in the chief private educational establishments of the South in the session of 1898–1899 comprised 11,971 young men and 3,338 young women; 2,578 male and 43 female students were entered in the schools of technology; and 9,308 male students and 122 female in the departments of law, medicine, and theology. The entire body of persons receiving a higher education numbered 23,856 young men and 12,747 young women. Tennessee stood at the head of the Southern commonwealths in the number of such students which it possessed—there were 4,132 young men enrolled in its colleges and universities, and 2,059 young women. Maryland occupied the second place, with 3,285 young men and 829 young women; and Virginia, the third, with 2,728 young men and 1,056 young women. Kentucky occupied the fourth, with 2,425 male students and 1,150 female; Georgia, the fifth, with 1,857

male students and 1,459 female; and Texas, the sixth, with 2,034 male students and 1,095 female. In Mississippi alone, the young women receiving a higher education were more numerous than the young men; on the other hand, in South Carolina and Arkansas, there was very nearly an equality in number between the two sexes, while in all the other Southern States, the number of male students greatly exceeded that of the female. This was especially the case in Maryland and Tennessee.

The total income of the Southern colleges and universities in the academic year of 1899–1900 amounted to $3,170,972; with the exception of $393,698, this large sum was derived from tuition and other fees, the annual interest on productive funds, appropriations made by State or city, and gifts received from the Federal government. The greatest proportion from any one source was obtained from fees paid by the students in attendance. The income from productive funds was not quite equal to one-fourth of the entire income from all sources, while the State and city appropriations did not exceed one-sixth. On the other hand, the income obtained from the Federal government was equal to about one-half of that derived from legislatures and municipal councils. Tennessee led all the other Southern commonwealths in the amount of income which its higher institutions of learning enjoyed during the same year; Maryland occupied the second position in the list; Texas occupied the third, and Virginia the fourth. The colleges and universities of Tennessee also received in 1899–1900 the largest amount in benefactions, the value of which was double that of the benefactions conferred on the colleges and universities of Kentucky, the State that, in this respect, ranked next to Tennessee. The other commonwealths followed Kentucky and Tennessee at a distance.

We will conclude our general survey of the pecuniary condition of the Southern institutions of higher learning, whether for whites or blacks, men or women, by a reference to what may be described as the plants of the colleges

and universities considered as a whole. There were in the libraries of the Southern colleges and universities, in 1900, 1,317,552 volumes, and 303,380 pamphlets, estimated to be worth $1,764,580; these colleges and universities possessed scientific apparatus valued at $1,774,819, and grounds and buildings at $19,785,144; and they had productive funds equal as a whole to $16,484,155. Maryland, Tennessee, and Virginia led both in the number and the value of the books which their college and university libraries contained. Tennessee occupied the first position in the value of its college grounds and buildings, and also of scientific apparatus, while Virginia ranked second and Maryland third. Maryland was the foremost of the Southern States in the amount of the productive funds owned by its higher institutions of learning; Tennessee held the second place in this respect, Louisiana the third, and Virginia the fourth. Alabama, West Virginia, and Arkansas, in the order given, closed the list.

CHAPTER XXV

EDUCATION—(Continued)

An account of the educational condition of the Southern States without discrimination as to race gives an incomplete idea of what these States have accomplished in the department of public instruction in the course of the last quarter of a century. As we have already pointed out, the only Southern commonwealth that expressly provided in its fundamental law for mixed schools was South Carolina. This was done in the darkest hour of the Reconstruction Era. That State drank deeper of the bitter cup than any other, and this clause in its constitution is one of the most conspicuous proofs of how far it was sought to carry the elevation of the negro. Never at any time, however, was a round of mixed schools inaugurated in the Southern States; that was a step which, though at one time proposed, even the fanatical Republican Congress of that day shrank from taking. If it had been really taken, either by State or national action, it would have destroyed the public school system throughout the South, because, in the long run, the system is absolutely dependent for its existence upon the good will of the white people. Had mixed schools been established, as an infinitesimal proportion of white children would have attended, the schoolrooms would practically have been left to the negroes, which would have meant ultimately, if not immediately, the ruin of the whole system.

It is doubtful whether the negroes have at any time really desired their children to enter the schoolhouses along with the white children. Among the most remarkable tendencies observed in individuals of the race since they obtained their freedom has been the one that leads them to withdraw from general association with the whites as far as their dependence on the latter for work permits. We see this disposition in their religious organizations, and in every other department of their lives. The Southern blacks have never made a serious demand for mixed schools, not so much because they know this would not be acceded to, as because, in their hearts, they do not wish it. But, whether they wished it or not, there is no probability that it will ever be granted.

It is not generally understood how much the necessity for separate schools for the two races has lessened the ability of the Southern States to establish their system of public education on the most effective as well as economical footing. The overwhelming majority of the Southern public schools are in the country, where the white and black populations are chiefly seated; and it has followed that, in every school district of the South, with the exception of a few in the mountain regions, where there are no blacks, it has been found necessary to build two schoolhouses, and employ two instructors. If the entire number of inhabitants were all black or all white, one schoolhouse and one teacher would be sufficient, and the available funds could be spent to greater advantage in providing a much superior type of both teacher and schoolhouse. In the districts where there are very many children of each color, the division does not result in the same degree of harm, but wherever the white and black school populations are alike small—and this is the case in a very large number of districts in all parts of the Southern States—the effect of the division is to lessen for both races the usefulness of the system of public education. Separate schools, however, are absolutely essential to the general

welfare of the Southern States, however much to be regretted from the point of view of the financial resources of the schools themselves.

It is computed that there are about 1,500,000 white people in the Southern States who are wholly illiterate. In Virginia, in 1900, 12.5 per cent of the white inhabitants above the age of twenty-one years were unable to read or write; in North Carolina, 19 per cent; in South Carolina, 12.6; in Georgia, 12.1; in Alabama, 14.2; in Tennessee, 14.5; in Kentucky, 15.5; and in Mississippi, 8.3. In short, the degree of illiteracy among white adults throughout the Southern States in that year was about 16.44 per cent of this branch of the general population. Of the entire body of white persons in possession of the franchise, at least 316,000 were unable to sign their names or read their ballots. There can be little doubt, however, that the clauses of the recently adopted Southern constitutions, which require an educational test of the white and black voters alike, will ultimately tend strongly to diminish this defect, now so observable among individuals of both races. The right to cast a ballot is one highly valued by the white men of the Southern States; and while a small proportion of them will always continue illiterate, owing to the lack of convenient school facilities in remote rural districts, a far greater number, who under other circumstances would never receive even rudimentary instruction, will be led to secure it as a prerequisite of the enjoyment of the suffrage. White parents unable to read or write will be made by these new laws much more solicitous to send their children to the public schools, and the latter, when they have grown up and have children of their own, will be the more eager for their offspring to take advantage of the system because they themselves have obtained their education under it.

One of the most remarkable characteristics of the Southern States at the present time is the large ratio of persons under age which they contain; in the thirteen States lying south of Potomac and Ohio Rivers and the commonwealth

of Missouri there were in 1900 about 10,400,000 white people, and of these at least 3,981,000 were children. It is computed that one among every five white children in these States does not receive even the rudiments of an education.

In these States, including Maryland, there were during the session of 1899–1900 only 2,211,092 white children in daily attendance in the Southern public schools, and only 65.68 per cent of the children of school age were enrolled. For their instruction, 81,707 teachers were employed; in other words, there was one teacher for every twenty-seven white pupils in average daily attendance in these schools. The average body of white pupils to each teacher in the Southern public schools varies in the different States; the largest in 1900 was found in Alabama, where the children in average daily attendance numbered as many as thirty-seven to each teacher, and the smallest in Virginia, where they numbered only twenty-one. In West Virginia, Florida, and Mississippi also, the average body of pupils in daily attendance did not exceed twenty-two, while in Texas, North Carolina, Maryland, and Arkansas it did not exceed twenty-five.

It is generally acknowledged that the efficiency of the public schools for the whites is seriously diminished by the fact that the teachers are paid very small salaries. In North Carolina the monthly salary of black and white, taken together, averages $23.36; in South Carolina, $23.20; in Georgia, $27; and in Alabama, $27.50. If, however, the average salary of the white teacher be considered separately, it will be found to be one-third more than that of the black. In the Southern States, as a whole, the average length of the school term is about one hundred and five days, but in many districts it hardly exceeds two months. The white teacher rarely expects to be employed more than ninety days at the most, or to receive for his services more than a total sum of $100 each year. It can be readily seen that the calling of a teacher in the public schools, especially in the country, offers few inducements to thoroughly competent

white men as a permanent profession; as a rule, it is taken up in the rural districts as a stepping stone to a more lucrative position in some other walk in life. In many parts of the South there is a population of only ten persons to the square mile. The inhabitants of these sparsely settled regions are too poor to supplement by local taxation the funds received from the commonwealth. In every Southern community of this kind there can be no reasonable hope of an improvement in the qualifications of the white teachers until the community itself grows sufficiently prosperous to remunerate them at a rate that will draw to the public schools a more capable class of men. In the meanwhile, the present salaries, even in the most impoverished districts, are attracting female white instructors, who are more competent than the male; the room for employment is so narrow for educated white women in the South that the small salaries paid persons in charge of the public schools offer a far stronger inducement to women than to men to adopt this as a permanent occupation. White female public school teachers greatly outnumber the male in the Southern States, not only because the salary tempts a greater proportion of women than of men, but also because fewer women who enter the public schools are drawn away into some other calling. But for marriage, it is quite probable the bulk of the Southern white female public school teachers would remain throughout their working life in the profession.

Nepotism enters more largely into the appointment of the white female teachers than of the male; a not inconsiderable proportion of the female teachers in the remote rural districts are relatives of local school trustees, and in many cases dependents, who thus obtain their only opportunity to earn their own support. Incompetency flourishes under these conditions.

The baneful influence of politics has crept into the public school system in some of the Southern States because of the manner in which county superintendents and the district school trustees are chosen. There has been a loud

complaint in some divisions of these States that the county superintendents especially are mere creatures of courthouse rings, and that as their tenure is short and uncertain, they are forced to show great complacency to a variety of persons who are seeking more eagerly the appointment of incompetent kinsfolk or political henchmen to positions in the public schools than the promotion of the highest welfare of the schools themselves. In some of the States the local school trustees are selected by the county commissioners and exhibit an equal degree of subserviency.

In no department of the public school system have the Southern States shown more interest than in the normal colleges, in which persons of both sexes and both races are prepared for the work of public instruction; in recent years especially, the most active steps have been taken to advance the usefulness of these colleges by enlarging their courses of study and introducing all the most improved methods of pedagogics. This is true of the institutions for white and black teachers alike. There are numerous signs that the general efficiency of the great body of the white teachers in the Southern public schools is steadily increasing; and this is chiefly due to the more thorough instruction of the normal colleges, in which an ever growing proportion of these teachers receive their training. The great demand for men and women who have obtained their professional education in the normal schools is the best proof of the high esteem in which their work is held. This great demand is noted in all parts of the Southern States. There is hardly a single one of these commonwealths which has not a public institution of some kind for the preparation of white men and women for the profession of a teacher. In many of the States there is more than one college of this character. These colleges offer tuition free of charge provided that the applicant binds himself or herself to teach a certain number of years in the public schools.

The two leading public normal institutes in Virginia for white teachers are the State Female Normal College at

Farmville and William and Mary College at Williamsburg. The normal college at Farmville was founded in 1884, and during the sixteen years ending in 1900, 394 young women had received diplomas from its faculty. In addition, many hundred others had been trained here. These, as well as the graduates, taught during at least two years in the public schools of the State. This institution, which is one of the most excellent in the South, is fully equipped.

The College of William and Mary receives annually from the legislature an appropriation to be expended in the support of a course designed for the training of white male teachers. The students pursuing this course, in consideration of the free tuition, pledge themselves, like the students of the Farmville Female College, to give instruction during two years in the public schools of the State. Nearly every city and county has been represented in this venerable college by young men who have taken advantage of this provision.

The leading State normal institute for white persons in North Carolina is situated at Greensboro. This is a college for women. Here young women of small or no means enjoy all the benefits of a special training for the profession of teaching; the expense of their tuition and support is met either by the interest on available funds, or by opportunities given the students to earn something by their own work. The State grants to this admirable institution an annual appropriation of $25,000. Its property is computed to be worth about $200,000.

There is a special course of instruction for teachers in the State University at Chapel Hill. The session here is confined to the summer, but, though the period of study is short, the ground covered is very extensive.

The State Normal College of Georgia is situated at Athens. In Florida, a course of instruction for teachers forms an important part of the work of Stetson University. The State Normal College of Louisiana is situated at Natchitoches; its normal course spreads over a period of four years.

The State Normal College for the whites in Texas is known as the Sam Houston Normal Institute. This school has been in operation during twenty-one years, and more than six thousand students have received here, at the expense of the commonwealth, their training for the profession of teaching. Its courses are open to both sexes, and extend over three years. The State appropriates annually $25,000 for the support of this institution.

The private institutions in the Southern States for the professional education of white teachers are much more numerous than the public. In Arkansas, in 1900, there were six schools and colleges in which a training of this kind was given; thirty-one instructors, male and female, were engaged here in teaching two hundred and fifty-one male and two hundred and forty-seven female students. In Florida, during the same year, there was but one private normal school; four teachers were employed in its classes, and its students numbered twenty-one young men and twenty-six young women. In the six schools and colleges of Kentucky which gave normal instruction in 1900, there were twenty-three teachers, three hundred and twenty-nine male students and three hundred and eighty-three female. During the same year, there were in Maryland two schools of this character, in which there were nine teachers, and twenty-one male and eight female students. The private normal schools of Mississippi, numbering four in 1900, possessed fourteen teachers, and seventy-two male and sixty-five female students. There were three private normal schools in North Carolina in this year with sixteen teachers, thirty-two male students, and one hundred and fifty-eight female. Texas possessed only one school of this kind in 1900; its male students numbered ninety-five, and its female thirty-six. West Virginia, like Texas, also possessed but one school; this had two instructors, and twenty male and fourteen female students. In 1900, there were three private normal schools in Virginia, in which twelve teachers were employed in instructing twenty-seven male

and twenty-four female students. Tennessee, however, led all the other States of the South during the same year in the number of its private normal schools for the whites; there were nine such institutions in this State, in which the male students numbered three hundred and thirty-five and the female two hundred and forty-three, while there were twenty-one teachers engaged in instructing them.

One of the most important means that has been adopted in the South for the advancement of the general efficiency of the white teachers has been the summer normal schools. An extraordinary interest has been shown in them wherever they have been held. In some of the Southern States, an annual appropriation by the legislature for the maintenance of a school of this character for the whites in each senatorial and judicial district has been made, but, as a rule, these district institutes are now sustained by the local teachers. In several of the commonwealths, one special summer school for the instruction of teachers is held in each of three or four great divisions of the State; and in others, one annual Summer School of Methods for the entire State. This is the case in Virginia, where the Summer School of Methods comes together each year in a different city. In 1899, four hundred and forty-eight teachers were enrolled in this assembly, of whom three hundred and twenty-three were employed in the public schools. Occasionally, a summer school is held for the teachers of the entire South; such was the character of the one that met at Knoxville, Tennessee, on June 19, 1902, and continued in session until July 31st. This city is near the geographical centre of the territory south of Ohio and Potomac Rivers and east of the Mississippi; and its convenient situation enabled at least two thousand teachers to be present at its first summer school, that of 1902. Twenty-nine States of the Union were represented in the meeting, and not less than three thousand persons came to listen to the lectures daily. The single object of the school was to reach teachers of all grades, and to furnish them the same opportunities for improvement in

their profession as those afforded by the greatest summer schools of the North and West, which, owing to the distance and expense, were inaccessible to all but a few of the Southern instructors.

Some knowledge of the courses of instruction followed in the great summer schools of the South may be obtained from a brief statement as to the ground covered by the session held at Knoxville in 1902. In a general way, it may be said that this ground embraced: (1) common school subjects and methods; (2) psychology and pedagogy; (3) high school and college subjects; (4) general lectures by leading men and women on the science, art, and philosophy of education, and on the history, present condition, and needs of the Southern schools, with a direct bearing on their improvement. Every branch of these different topics was fully discussed by persons who had acquired eminence in their profession of teaching, and were specially competent to speak on account of their long practical experience.

In their narrower sphere, many of the district summer schools of the Southern States are as thorough as the great summer school which held its first session at Knoxville. The teachers are divided into classes, as if studying in a model institution, where the best methods of instruction in a great variety of branches of knowledge are pursued. Lessons in the organization, government, and discipline of a school are given; how, for instance, to open the daily session, to call the roll, to conduct recitations; how to furnish and arrange the schoolroom, and how to make it healthful and attractive. In addition to this practical drill in conducting a school, the best methods of imparting knowledge, the best means of inculcating sound morals and good manners, the best ways of advancing the usefulness of the public school system generally are discussed.

CHAPTER XXVI

EDUCATION—(Continued)

PASSING from the education of the whites in the public schools to the education of persons of the same race in academies and the higher colleges and universities, it will be found that the South is well equipped with such institutions, and that, as a rule, they are entirely independent of the system of public instruction. As has already been pointed out, no part of the United States before the great War relied as much as the Southern States did on private initiative in the education of the young. At a time when the public school system languished almost everywhere in these States, the private academy, college, and university were in a condition of great prosperity. The larger proportion of these institutions were admirable in their moral influence and literary training. It was here that the higher planting class of the South, as accomplished and cultivated a body of men as the United States in their day possessed, obtained their education. Many of the famous academies and high schools of slavery times have passed away with the practical destruction of the rural gentry, who gave them their chief patronage; but the colleges and universities of that period have, with hardly an exception, survived, and are now, very generally, in the enjoyment of greater prosperity than at any date in their history. To these institutions, which have come down through the fires of war, numerous new ones have been added, until there is hardly

a division of any single State in the South that has not now an excellent college or university of its own. This is largely due to the influences that sprang up almost as soon as the War closed. The impoverishment of the Southern people resulting from the devastation of arms and the uprooting of slavery seemed to make them value the more highly the importance of education; this was, in only too many cases, the only capital which parents could give their children, and in the vast majority of instances it was the children's only means of earning a subsistence. No adequate record will ever be preserved of the sacrifices that were made by fathers and mothers, and by their sons and daughters themselves, that the latter might be prepared by a college training for the hard competition of life. During the first twenty-five years following the end of the War, a far greater proportion of Southerners of both sexes of the white race became teachers than has been the case since then; indeed, this was the way in which the largest number of the young men of that period obtained the means to study law, medicine, theology, or engineering. It happened very naturally that having begun with teaching, a very considerable body of young men continued it as a life work. Because of the necessities, in great measure, of a superabundance of graduates without other opportunities of immediate self-support, an extraordinary number of new academies and colleges sprang up in the Southern States long before these States had been restored to even a small share of their former prosperity. The supply of such institutions was really out of proportion to the size of the white population. They have, however, accomplished a great work in preparing the young for the new conditions prevailing in the South.

Under the system formerly in operation, the great number of academies and colleges was largely due to denominational influences. Every church body took care to have an academy or college of its own. Such institutions were chiefly supported by parents in sectarian sympathy with them. Considering the Southern States as a whole, there was not

a single commonwealth that did not contain at least one college or academy belonging to each branch of the Protestant faith, and in only a few of these States was a Roman Catholic college or academy absent; in many, every Protestant denomination possessed more than one such institution of higher learning. Under the order now prevailing in the South, there has been a steady increase in the number of denominational colleges, many of which are among the most highly endowed in that part of the Union. We will name these specially fortunate institutions when we come to touch on the colleges and universities now in operation in each commonwealth.

First, we will consider the private high schools and academies situated in the Southern States. These approximately number 780, and include the private schools and academies for both the Southern whites and the Southern blacks, but the number belonging to the latter are so few as to affect but slightly the general estimate of the number belonging to the whites alone; it is quite fair to say that over 700 of these are the private high schools and academies of the white people. From the number of these institutions, it may be accepted that there are few groups of counties, however small, in the Southern States which do not possess a private high school or academy offering a varied course of instruction, within certain limits, to all students who enter it.

Alabama possesses eight colleges and universities for the advanced education of men, or men and women together, of the white race. Two of these institutions, the St. Bernard and Spring Hill Colleges, are controlled by the Roman Catholics; the Southern University by the Methodist Episcopal denomination; and the Howard College by the Baptist. The remaining four are non-sectarian. In these eight institutions, 114 male and 14 female professors are engaged in teaching. The attendance of students in 1900 numbered 1,693, of whom 253 young men and 202 young women were enrolled in the preparatory departments, while there

were 817 male students and 222 female pursuing the studies in the collegiate courses. No women were included among the 199 students entered in the professional classes. In the University of Alabama alone there are forty-three professors. The opportunities for an education which it affords are open to both sexes alike. In 1900, there were twenty-two women receiving instruction in its collegiate courses. The students in attendance on the institution average about 400 in number; its annual income amounts to about $45,000, its productive invested funds to $300,000, while it receives each year, in the form of State and municipal appropriations, about $10,000. The grounds and buildings of the University are valued at $300,000, its scientific apparatus at $50,000, and its library of 25,000 volumes at $25,000.

There are seven institutions in Arkansas for the higher education of men, or men and women together, of the white race. Only one of these institutions is non-sectarian in character; the remainder are under the control of either the Presbyterian, the Methodist Episcopal, or the Baptist denomination. The teachers at these different seats of learning, in 1900, included eighty-eight men and twenty-seven women, while 893 male and 672 female students were enrolled in the preparatory and collegiate departments. Fifty-one men and twelve women were engaged, during the same year, in teaching in the University of Arkansas. The attendance in the preparatory and collegiate departments of this institution numbered 464 male students and 191 female; and there were 137 men receiving instruction in its departments of law and medicine. Its income from all sources was equal, in 1900, to $80,875; and in that year, its buildings and grounds were valued at $233,500, and its scientific apparatus at $49,211; it also possessed a library of 15,499 books and pamphlets valued at $8,000, and had productive funds to the amount of $130,000.

There are five institutions established in Florida for the higher education of men, or men and women together, of the white race. Three are non-sectarian in character,

LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA



Andrew Carnegie.

while, of the remaining two, one is under the control of the Roman Catholic, and the other, of the Baptist denomination. The professional corps of these colleges numbered, in 1900, fifty-one men and thirty-one women; and 347 male and 310 female pupils were, in the same year, enrolled in the preparatory and collegiate departments. There is no State university, but the John B. Stetson University at Deland offers a very extended and varied course of studies. This institution has an annual income from all sources of about $23,351, which embraces the interest derived from a productive fund of $200,000. Its grounds and buildings, in 1900, were valued at $250,000; its scientific apparatus at $25,000; and its library of 10,500 books and pamphlets at $30,000.

Georgia possesses seven institutions for the higher education of men, or men and women together, of the white race. Three of these institutions are non-sectarian; the remainder belong to the Baptist and the Methodist Episcopal denominations. Seventy male and fourteen female professors are engaged in teaching in these different colleges and universities. The male students in the preparatory and collegiate departments numbered 1,112 in 1900, the female 399, while there were 79 men receiving instruction in the professional classes. The State university is situated at Athens, and its attendance, in 1900, amounted to 332 male students. There were twenty-six male professors enrolled in its faculty. The income of the State university, in 1900, was equal to $49,421; it had, in that year, a productive fund of $372,702, while its grounds and buildings were valued at $400,000, its scientific apparatus at $50,000, and its library, composed of 30,000 books and pamphlets, at $35,000.

Kentucky possesses twelve institutions for the higher education of the whites—either of men only, or individuals of the two sexes together. Only two of these seats of learning are non-sectarian; the remainder are under the control of the different religious denominations; thus three

belong to the Baptists, two to the Christians, Presbyterians, and Methodists, respectively, and one to the Roman Catholics. In 1900, there were two hundred and thirty-seven male and thirty-seven female professors engaged in teaching in these different institutions, while 1,966 young men and 944 young women were enrolled in the preparatory and collegiate departments, and 694 men in the various professional classes. Kentucky has no State university.

There are five colleges and universities in Louisiana for the higher education of men, or men and women together, of the white race. Two of these institutions are non-sectarian in character; two are under the control of the Roman Catholics, and the fifth belongs to the Methodist Episcopal Church. Of the 137 professors engaged in teaching in them, 121 are men and 16 are women. The male students enrolled in the preparatory and collegiate departments in 1900 numbered 1,072 and the female 265; and there were 498 men and three women entered in the professional classes. The State University has passed through various vicissitudes. Opened in January, 1860, as a military academy, it was closed soon after hostilities began. Reopened in 1865, it was four years later destroyed by fire. Reëstablished after this event at Baton Rouge, it was suspended in 1873 owing to the struggle for mastery which was then going on between two conflicting State administrations. It was reopened in 1877, and since then has enjoyed a high degree of prosperity. Its income from all sources amounted in 1900 to $70,874; in the same year it possessed $318,313 in productive funds, while its grounds and buildings were valued at $183,300, its scientific apparatus at $50,000, and its library of 23,000 books at $21,000. Its students numbered 368. In Tulane University, situated at New Orleans, Louisiana possesses one of the foremost institutions in the Southern States. In 1900, this university enjoyed an income from all sources of $121,600, of which a considerable part was derived from the interest on invested funds amounting to $1,477,000. Its grounds and buildings were valued

at $810,000, its scientific apparatus at $106,000, and its library composed of 30,000 books and pamphlets, at $20,000. Fifty-nine men and sixteen women were included in its corps of professors, while 180 male and 265 female students were enrolled in its preparatory and collegiate departments. The number of students in its professional classes included 498 men and three women.

There are ten institutions in Maryland for the higher education of white persons—either of men only or individuals of both sexes. Four of these institutions are nonsectarian and four are under the control of the Roman Catholics; of the remaining two, one belongs to the Presbyterian and the other to the Methodist Protestant denomination. Of the 285 professors engaged in teaching in these institutions in 1900, 272 were men and thirteen women. During the same year, 1,450 male and 196 female pupils were enrolled in their preparatory and collegiate departments, and 268 men and 42 women in their professional. In the Johns Hopkins University, Maryland possesses, from some points of view, the leading educational foundation in the United States. In 1900, its productive funds amounted to $3,250,000, while its grounds and buildings were valued at $747,626, its scientific apparatus at $117,177, and its library of 194,000 books and pamphlets at $116,340. The professors engaged in teaching in the various courses of the university number 131. Its roll of students included, in 1900, 176 young men in the collegiate department, 242 in the professional, and 185 resident graduates. The female students numbered forty-two.

Mississippi possesses only three institutions for the higher education of men, or men and women together, of the white race. Of these institutions, one is under the control of the Baptist denomination and another of the Methodist Episcopal. One female and forty-three male professors were, in 1900, employed in teaching the 600 male and the 31 female students enrolled in the preparatory and collegiate departments and the 68 men who were pursuing a

professional course. The University of Mississippi in the same year enjoyed an income from all sources of $71,400. Its grounds, buildings, and scientific apparatus were valued at $375,000, and its library, composed of 19,000 volumes, at $25,000. The productive funds of the institution amounted to $750,000.

There are ten institutions established in North Carolina for the higher education of men, or men and women together, of the white race. Only two among the ten are non-sectarian in character; of the remainder, one is under the control of the Roman Catholics, and one of the Presbyterians, the Methodists, and the Reformed Church respectively. Two belong to the Lutherans, one to the Friends, and one to the Christian Church. Employed in these different institutions, in 1900, were 133 male and 19 female professors; 2,336 students were enrolled in their various departments, and of this number, 1,708 young men were entered in the preparatory and collegiate branches and 380 young women. There were 248 students in the different professional classes. The State University is situated at Chapel Hill. In 1900, 35 professors were included in its corps of instructors, while 337 male and 8 female students were enrolled in its collegiate department and 144 young men in its professional school. Its annual income from all sources was estimated at $51,086, which embraced the interest from a productive fund of $100,000. Its buildings, grounds, and scientific apparatus were valued at $360,000, and its library, composed of 43,000 volumes, at $100,000. Three other institutions, Wake Forest, Davidson, and Trinity Colleges, are highly endowed.

South Carolina possesses seven institutions for the higher education of men, or men and women together, of the white race. These institutions, with two exceptions, which are non-sectarian, are under the control of denominational influence. Two belong to the Presbyterians, and one to the Baptists, the Methodists, and the Lutherans respectively. There were, in 1900, 70 professors employed in teaching

in their various departments, while 83 male and 61 female students were enrolled in the preparatory and collegiate branches, and 38 young men in the professional. The College of South Carolina, situated at Columbia, was the only State institution designed for higher education. This college enjoyed, in 1900, an income from all sources of $32,000; its grounds, buildings, and scientific apparatus were valued at $225,000, and its library, composed of 33,000 volumes, at $74,000. The roll of students in the collegiate department numbered 180, of whom 21 were young women. There were 28 men in the professional branches.

Tennessee possesses twenty colleges and universities for the higher education of men, or men and women together, of the white race. These institutions, with two or three exceptions only, are under the control of denominational influence. Seven of the twenty belong to the Presbyterians; the remainder are divided among the Methodist Episcopal, Baptist, Roman Catholic, Protestant Episcopal, and Christian Churches. In these different institutions, 462 male and 83 female professors were, in 1900, engaged in teaching. During the same year, the enrollment in the preparatory and collegiate departments numbered 2,946 male and 1,591 female students, while there were 1,861 young men and 10 young women receiving instruction in the professional branches. There are three universities situated in Tennessee in addition to the State University at Knoxville, namely, Vanderbilt University, the University of the South, and the University of Nashville. Vanderbilt University enjoys an income from all sources of $133,000, a part of which is derived as interest from a productive fund of $1,200,000. Its grounds, buildings, and scientific apparatus are valued at $950,000, and its library of 35,000 volumes at $75,000. The annual income of the University of Tennessee from all sources is about $83,859. Its productive fund amounts to $425,000, while its grounds, buildings, and scientific apparatus are valued at $705,000, and its library,

composed of 30,000 volumes, at $17,700. In 1900, there were 269 male and 90 female students enrolled in its preparatory and collegiate classes, and 390 young men in its professional. Its corps of professors was made up of 71 men and 4 women. In the same year, there were 163 male and 34 female students enrolled in the collegiate courses of Vanderbilt University, while the attendance in the professional departments numbered 586 young men and 3 young women. One hundred more composed the corps of professors.

Texas possesses fourteen institutions for the higher education of men, or men and women together, of the white race. Only two of these institutions are non-sectarian in character; three are controlled by the Methodist Episcopal denomination, three by the Baptist, and two by the Presbyterian, while one is under the influence of the Christian Church, and three of the Roman Catholic. In 1900, 2,235 male and 911 female students were enrolled in the preparatory and collegiate departments, and 687 young men and 89 young women in the professional. The corps of instructors embraced 215 men and 65 women. The University of Texas enjoys from all sources an annual income of $169,295; its grounds, buildings, and scientific apparatus are valued at $500,000; and its library, composed of 45,000 volumes, at $50,000. Its productive fund amounts to $626,716. In 1900, there were 359 male and 167 female students in attendance in its collegiate department, and 360 young men and 31 young women in its professional. Sixty male and eleven female instructors were enrolled in its corps of professors.

Virginia possesses ten institutions for the higher education of men, or men and women together, of the white race. Excepting William and Mary College and the State University, all these institutions are more or less under denominational influence; two are controlled by the Methodist Episcopal Church, three by the Presbyterian, two by the Baptist, and one by the Lutheran. There were, in 1900,

1,403 male and 146 female students enrolled in the preparatory and collegiate departments, and 462 young men in the professional, while the corps of instructors was made up of 157 male and 7 female professors. The State University at Charlottesville has long exercised a powerful influence in advancing the interests of higher education among the Southern people, an influence of the very first importance in the course of the first twenty-five years following the close of the War, when it sent forth an army of graduates to fill the various chairs in the colleges and universities of the Southern States. In 1900, there were 265 male students enrolled in its preparatory and collegiate departments, and 358 in its professional, while 50 male professors were included in its list of instructors. The income which it enjoyed from all sources amounted, during the same year, to $146,325. In 1900, also, it had a productive fund of $375,600; its grounds, buildings, and scientific apparatus were valued at $1,100,000, and its library, composed of 50,000 volumes, at $85,000. Washington and Lee University, also in Virginia, has an endowment fund of $626,426, while its grounds, buildings, scientific apparatus, and library are valued at $266,000. In 1900, it had an enrollment of 189 young men in its different departments.

West Virginia possesses three institutions for the higher education of men, or men and women together, of the white race. Only one of the three is non-sectarian in character. In 1900, 385 male and 140 female students were enrolled in the preparatory and collegiate departments of these institutions, and 125 men and 2 women in the professional, while the corps of instructors was made up of 59 male and 5 female professors. The State University enjoyed, in the same year, an income from all sources of $166,099, a part of which was derived from a productive fund of $114,750. Its grounds, buildings, and scientific apparatus were valued at $305,000, and its library, composed of 17,300 volumes, at $30,000.

Such is a very brief account of the institutions which each of the Southern States possesses for the higher education of men, or men and women together, of the white race. In this account, we have dwelt only on the general resources of the State universities and a few universities, like Vanderbilt and Washington and Lee, which are in the enjoyment of incomes from large endowment funds. It will be interesting to summarize the resources of all the Southern institutions of the special character referred to in the previous paragraphs.

We find, then, that the Southern States, as a whole, possess one hundred and twenty-one institutions for the higher education of men, or men and women together, of the white race; that these institutions in 1900 had an attendance of 28,727 male and female students; that their libraries contained 1,508,284 books and pamphlets, valued at $1,388,530; that their scientific apparatus was computed in the same year to be worth $2,284,246, and their grounds and buildings $17,156,704; that they possessed productive funds amounting to $16,276,241; and that their annual income was equal to $2,502,896.

In addition to the institutions already considered, we must mention those that are devoted wholly to the higher education of women of the white race. In 1900, there were in the Southern States ninety-five institutions designed exclusively for the higher education of white women. In 1900, there were 13,674 students receiving instruction in these different seminaries. The libraries of the Southern female colleges in the same year were composed of 153,699 volumes; the grounds and buildings were estimated to be worth about $4,948,500, and the total annual resources to amount to $993,165. Mississippi led in number of students, but was surpassed by North Carolina in the value of grounds and buildings, and by Georgia in volume of annual income. North Carolina also contained the seminaries owning the largest collections of books. Tennessee, which, as we have seen, stood first among the Southern

States in the number of students enrolled in its higher institutions for men, or men and women together, of the white race, occupied the second position as to libraries in the list of institutions for the education of women exclusively. It held the third position in this list in the point of income, instead of first as in the case of the income of institutions for men, or men and women together.

The seminaries for the higher education of white women only are, with the exception of about a third of their total number, under the control and direction of different religious bodies. Of the eight seminaries of Alabama, five are sectarian; of the eleven of Georgia, eight; of the ten of Kentucky, five; and of the twelve of Mississippi, seven. The entire number in the States of Arkansas and Louisiana are denominational. One alone of the four situated in Maryland is free from sectarian control, and only two of the nine situated in North Carolina and South Carolina respectively. Of the eleven situated in Tennessee, seven are denominational in character; of the five in Texas, four; of the ten in Virginia, nine; and of the two in West Virginia, one. Twenty-five seminaries are controlled by the Methodist Episcopal Church, eighteen by the Baptist, thirteen by the Presbyterian, four by the Lutheran, and one each by the Moravian, Roman Catholic, Christian, Reformed, and Protestant Episcopal.

CHAPTER XXVII

EDUCATION—(Continued)

Of all the aspects of the history of the Southern States during the time that has passed since the close of the great War, the one reflecting in the most conspicuous way the magnanimity of the white people has been the extraordinary sacrifices they have made for the education of the negroes. During a long period, and to a certain extent this is still true, the emancipated blacks were directly pitted against every interest of their former masters. Apart from the transmitted bitterness growing out of the War and the fierce memories of the Reconstruction era, with its wild and grotesque carnival of negro rule; apart from a political antagonism that remained as uncompromising as ever even when the blacks had lost control of the local governments,—there was the inherent and ineradicable racial antipathy to set the whites against their former slaves, and to extinguish all desire to afford them an equal opportunity for improvement. With an excellent show of reason, a determination to retaliate on them for the pecuniary losses and indescribable sufferings which they had brought about might have been easily hidden under the specious pretence that the dreadful impoverishment caused by the abolition of slavery rendered it impossible for the white people to extend to the negroes any means of obtaining an education beyond what their own taxes might furnish. The suggestion has been often made that the school fund of each State should be divided in proportion to the amount paid to the commonwealth by

each race, but never has such a suggestion met with general acceptance in the South, even in times when the intemperate conduct of the negroes has been such as to inflame public sentiment against them. In spite of impoverishment, in spite of racial hatred in all its ramifications, above all, in spite of apparently reasonable ground for thinking that the moral and industrial character of the black masses has not been greatly elevated by the instruction received in the public schools, the white people of the South have remained true to the principle, founded in justice and practical wisdom, that it is the duty of all the people to educate all the people, irrespective of color or condition.

It is estimated that for every dollar that the philanthropy of the North, which freed the negro, has contributed to his education, the South, which sought to continue him in slavery, has contributed four. Not less than one hundred millions of dollars have been expended by the Southern people in the course of a quarter of a century in support of public schools for the blacks. Of this enormous sum, only a small part was obtained as the negro's share of taxation. The history of South Carolina in this respect is the history of the entire South—although the white people of that State, who form not even one-half of the population, pay four-fifths of the school tax, yet the whole amount of this tax, which comes to nearly one million dollars annually, is distributed without regard to race. The negroes, who pay only one-fifth of it, as they outnumber the whites as two to one, obtain nearly double the sum that is spent on the schools established for the benefit of the white children. With a marked discrimination in favor of the latter schools, their terms might be greatly extended, to the incalculable advantage of the white race; no discrimination, however, is made, and in consequence, the school terms for the white pupils do not cover a period longer than three or four months.

The history of North Carolina in this particular is in spirit the same as that of South Carolina; the white people

of this State pay five-sixths of the school tax in spite of the fact that the black population is equal to about one-third of the white; nevertheless, the general fund is distributed without discrimination in favor of the schools for the white children. In Kentucky, the black school population is about one-seventh of the entire school population of the State; although the negroes practically contribute nothing to the support of their own schools, they receive a share of the public school fund in proportion to their numbers. The same is true in Louisiana, Virginia—in fact, in each of the Southern States, whether the negro population is large or small; in all these States, the facilities for the education of the blacks are essentially the same as those for the education of the whites; whatever differences there may be—such as a possible superiority, on the whole, in the school houses for the whites, and a greater number of teachers in proportion to number of pupils—are not differences which place the negro at any special disadvantage. The smaller salaries paid to the black teachers in some of the Southern States are due to the ordinary law of supply and demand, as we will show later on. It does not lead to the deterioration of these teachers as a mass.

How does the attendance of the black pupils in the public schools compare with that of the white? Are the negroes making less or more use of the public school system than the white people as a means of improving their general condition?

The statistics disclose the fact that, of the 2,861,690 negro children living in the Southern States, about 910,601 attend the public schools every day, which signifies that not more than one-third of the black school population on the average take advantage of the facilities for obtaining a rudimentary education afforded by the system of public instruction. In the case of the white school population, on the other hand, slightly less than one-half make the most of the same opportunities. It is a fact of interest that the percentage of the children formally enrolled who are in

daily attendance is substantially the same for both races; the difference in favor of the whites does not exceed 3 per cent. The proportion of attendance to enrollment is about two-thirds for the whites and blacks alike. The deficiency of one-third is attributable to the same causes in the case of each school population—it is due, first, to the calls for the labor of both white and black children on the part of their parents at certain seasons of the year, when the need of attention to the crops is most urgent; and, secondly, to the remoteness of so many of the rural schoolhouses from the homes of a large number of the pupils, as this makes their attendance more dependent upon their physical condition, or the state of the weather.

In some of the Southern States, where the white and the negro school populations are not very wide apart in number, the average daily attendance of the white children runs very much ahead of that of the black. Thus in Alabama, in which commonwealth the white school population embraced, in 1900, only 50,000 more individuals than the negro, the white children in average daily attendance outnumbered the black by 108,000. In Georgia, although the white school population, in the same year, exceeded the black by only 25,000, the average daily attendance of the white pupils exceeded that of the negro by as much as 60,000. In Mississippi, the black school population, in 1900, was larger than the white by nearly 104,000, and yet the average daily attendance of the black children in this State ran ahead of that of the white by only 4,000. In Louisiana, the black school population, in 1900, outnumbered the white by 14,830, and yet the average daily attendance of white pupils was greater than that of the black by 34,000. In South Carolina, the black school population, in 1900, was 126,000 more numerous than the white; nevertheless, the average daily attendance of the negro pupils exceeded that of the white by only about 20,000. The white school population of Tennessee, in 1900, was about three times the size of the black, and yet the average

daily attendance of white pupils in that State, in the same year, was four times greater than that of the negro. The two States in which the largest percentage of the enrollment of black pupils is in daily attendance at the public schools are Louisiana and South Carolina—in the one, the percentage is as much as 75.62, and in the other as 71.30. In Louisiana, the percentage of black pupils enrolled who attend the public schools is greater than the percentage of white; the only other States in which the same condition is observed are Arkansas, Kentucky, and West Virginia.

The average number of black pupils to the teacher in the Southern public schools for the negroes is thirty-five as compared with twenty-six to the teacher in the public schools for the whites, a difference of nine in favor of the latter; that is to say, the white teacher has on an average to instruct nine fewer children than the black, and to that extent, the white pupils are likely to enjoy a larger degree of the teacher's care and attention than the black pupils do. It is doubtful whether in the rudimentary studies pursued in the rural school rooms the difference of nine taxes the strength of the black teacher to a point that even slightly diminishes his usefulness. It is observable that the highest average number of pupils to the instructor, both white and black, is to be found in Alabama; here each negro teacher has charge, on the average, of twenty more children than each white instructor; in Florida and Louisiana, of twenty-two more, and in South Carolina, of twenty-one more. On the other hand, in Kentucky, Maryland, North Carolina, Tennessee, and Texas, the number of children on the average is very nearly the same to the teacher of each race; while in West Virginia, the white teacher has charge on the average of six more children than the black. In Kentucky, he has charge of one more.

The number of public high schools for the negroes in the Southern States is smaller in proportion to the black school population than the number for the white children in proportion to the white school population. The principal

reason for this difference is, as we have pointed out in a preceding chapter, to be found in the fact that the high schools are situated only in the towns and cities where the school population contains a larger proportion of white than of black children.

During the session of 1899–1900 there were only 6,228 pupils receiving instruction in the seventy elementary and secondary classes of the Southern public high schools provided for negroes; and the teachers in these schools, both male and female, numbered only one hundred and ninety-eight.

As we have already pointed out, the white male teachers in the public schools, on account of the smallness of their compensation, are disposed to look upon their positions as a mere temporary expedient for obtaining a subsistence, and this fact has done much to lessen their usefulness. The attitude of the black male teachers is altogether different; though their average salary is about one-third lower than that of the white, it is so very much greater than any sum which so large a body of negroes could earn in any other walk of life, that the boards, which make the appointments, are able to secure without trouble for the black schools the most competent men that the race affords. There are so few occupations open to the negroes that will bring them in an income in excess of $10 a month, that a salary of $30 a month continued for a period of four, sixteen, or twenty weeks appears to even the best educated individuals among them to be highly lucrative. There are really but two professions which the Southern black man can enter without being subject to a fatal competition with the whites—one is the profession of teaching in the public schools, the other is the profession of preaching; both afford a rate of compensation far beyond his reach should he become a laborer; and the result is that the most capable and ambitious negroes are drawn into these two pursuits. As the field of teaching contains more room for employment than that of preaching, the bulk of the most intelligent are to be found in it.



University of Texas at Austin.

LIBRARY
OF THE
IVERSITY
OF
ALIFORNIA

Looking upon the calling of an instructor in the public schools as the most profitable and respectable in which large numbers of persons of their race can engage, it is not surprising to discover that the black teachers, both male and female, are thoroughly satisfied to follow it as their permanent occupation in life. They enter it with no ulterior purpose of taking up some other profession. This fact alone has a powerful influence in raising the general efficiency of their entire body, for, usually, prolonged experience in the work of instructing the young in the public schools greatly increases the competency of the instructor. In the case of the teachers in the white schools, it is the women who continue the longest in the profession; while the reverse is true of the teachers in the negro schools—it is the men who continue the longest, for, as a rule, the black women abandon the calling as soon as they marry, which they are apt to do at a much earlier age than the female white teachers.

From the beginning there has been a strong conviction on the part of the school boards, which appoint the teachers for both races, that the teachers of each race should be of its own color—that the negro, whatever may be his deficiencies as an instructor, has an indisputable right to be placed in charge of the education of the black children in the public schools, subject, of course, to the general supervision of the school authorities. There are still a few white teachers in the black schools, but the proportion has been steadily declining in recent years; in time, not a single white teacher will be found in a school of this kind in any part of the South.

In most of the Southern States, public normal colleges have been established to equip the black teacher for his duties in the public school as thoroughly as his natural capacity permits. In many of these States, a normal course for the same purpose forms one of the principal departments in all the public institutions for the higher education of the negroes.

In the State Normal College for the negroes of Alabama, situated at Montgomery, there were, in 1900, 152 male and 314 female students preparing themselves for the calling of a public teacher. Its corps of professors embraced eight whites and eighteen blacks. The normal courses of the State Normal College of Arkansas, situated at Pine Bluff, were attended, in 1900, by 36 young men and 26 young women, who were under the direction of two white and five negro instructors. The State Normal College of Florida, which is associated with an industrial institution situated at Tallahassee, possessed, in 1900, only a small number of pupils. On the other hand, the State Normal College of Kentucky, situated at Frankfort, had, during the same year, about 73 pupils of both sexes in attendance. Its corps of professors was composed of five men and four women, all of whom were negroes. The State Normal College of Mississippi, situated at Holly Springs, had, in 1900, one white and eight black instructors, and a large number of students were entered in its classes. In the Prairie View State Normal College, Texas possesses one of the most flourishing institutions of its kind in the South; in 1900, its faculty was composed of 21 negro professors, and it had an enrollment of 136 male and 140 female students. The State Normal College of Virginia, situated at Petersburg, was equally prosperous; in 1900, its corps of instructors embraced thirteen men and women, while its courses of study were attended by 161 male and 182 female pupils. North Carolina possessed, in 1900, at least three public institutions in which normal courses were taught; and here a large number of young blacks of both sexes are annually trained for the profession of a teacher in the public schools. Maryland, Tennessee, Georgia, South Carolina, and Louisiana appear to have no State institutions in which negroes receive instruction in distinctly normal courses.

These latter States, as well as those in which public normal colleges have been established for the instruction

of negro teachers, are well supplied with private schools that impart a like training, often in association with industrial courses. In Alabama, the principal private foundation of this kind is the Tuskegee Normal and Industrial Institute, which has won a wide reputation under the management of Booker T. Washington. This important college has sent forth a small army of teachers, and its success forms a very encouraging chapter in the history of the blacks in recent years. The founder, Washington, a negro of mixed blood, and of extraordinary practical wisdom, was born a slave on a plantation in Virginia, and as a boy worked in a coal mine in West Virginia at a daily rate not exceeding fifty cents. While there, he learned to read, and when still very young, entered the Hampton, Va., Agricultural and Normal Institute. On his way thither, he reached Richmond entirely penniless, slept for the night under a wooden sidewalk, and earned enough next day as a coal heaver to meet the expenses of the remainder of his journey. Graduating from Hampton with distinction, he taught for a time in West Virginia, and after a course of study in Wayland Seminary, in Washington, returned to Hampton as an instructor. In 1880, he was chosen to be the principal of a normal school that had been just established at Tuskegee, Alabama. The State legislature had appropriated a sum sufficient to pay the salaries of the teachers, but there was no money with which to erect the necessary houses, and to purchase books and apparatus. At the first session, only thirty pupils were enrolled, and the schoolrooms consisted of a dilapidated negro church edifice, and a wooden shanty. The first step taken by Washington, in order to bring about an improvement, was to buy a neighboring plantation with borrowed money, which, however, was soon returned. The buildings standing on this estate furnished the desired classrooms, but, in a short time, a large house for the same purpose was erected. Structure after structure was added to the number already standing as time passed on, until now the property of the establishment

is valued at many hundred thousand dollars. From the opening of the school, the white people of Tuskegee have contributed in many ways to its success; the State has made an annual appropriation for its support; while for its general enlargement numerous gifts have been received from persons at the North.

We have already dwelt on the agricultural and industrial features of this important institution. It will not be uninteresting to refer briefly to the academic department. This is especially directed to preparing the students for the calling of a teacher, which is pursued by such a large majority of the pupils when they leave the school. The course extends over four years, though few of the young negroes in attendance are able, owing to lack of means, to devote themselves to it uninterruptedly for so long a period. It begins with instruction in English composition and reading, which is followed up by studies in different branches of English literature; there are also classes in elementary geometry, history, civil government, bookkeeping, mental and moral philosophy, natural science, vocal music, and the theory and practice of teaching. A varied industrial education is closely associated with the academic for the moral influence which such training is shown by experience to exercise. Most of the students are compelled to earn the amount needed to meet their expenses by giving up a part of their time to working in one of the manual departments of the school.

A second private normal school for negroes situated in this State is the Central Alabama Academy.

Florida has one private school of this kind, known as the Orange Park Normal and Training School.

There are four similar institutions in Georgia, namely, the Haines Normal and Industrial School, the Ballard Normal School, the Allen Normal and Industrial School, and the Haven Normal School.

The Chandler Normal School in Kentucky is also a private institution.

Maryland has one private school, known as the Baltimore Normal School, while Mississippi possesses two, namely, the Spring Hill Normal College and the Tongaloo University.

There are four private normal schools for negroes in North Carolina, namely, the Lincoln Academy, St. Augustine's School, the Gregory Normal Institute, and the Waters Normal Institute. There are also four in South Carolina, namely, the Avery Normal Institute, the Wallingford Academy, the Penn Normal and Industrial Institute, and the Brewer Normal School.

Tennessee possesses three private normal schools for negroes; these are known as the Freedmen's Normal Institute, the Lemoyne Normal Institute, and the Morristown Normal College. There is only one private school of this kind in Texas, namely, the Mary Allen Seminary. West Virginia contains but one—the Storer College. There are three such institutions in Virginia if we include the Normal and Industrial School at Hampton among the number; the other two are the St. Paul Normal and Industrial Institute and the Hartshorn Memorial College.

The Hampton Normal and Industrial Institute, like its principal offshoot, the Tuskegee Normal and Industrial College, though it receives a certain proportion of its annual income from the State, is yet essentially a private foundation. We have already referred to its origin and to its practical connection with the purely industrial development of the Southern States. In its relation to the education of the negro as a public school teacher, it occupies a position of extraordinary influence and usefulness; in this respect, as well as in respect to its manual features, the college at Hampton is the model upon which all the foremost institutions of the Southern States for the blacks, including the Tuskegee Normal and Industrial College, have been formed. The actual work done by it in training the negro to be an instructor in the public schools has been of inestimable value, while the mere example which it has set has been almost equally important in promoting the welfare of the

race. It is now generally recognized that the principle which the Hampton Institute has always sought to enforce in the preparation of the black teacher is the one that will make him most useful, not only to his future pupils, but also to the entire community in which his lot is cast—in his education, agricultural and industrial instruction is associated with academic, and the most strenuous effort is made to teach him "the gospel of hard work, thrift, temperance, and practical morality." The academic course is substantially the same as that taught at Tuskegee, and, as far as possible, it is correlated with the tasks in the shops and on the farms.

During the session of 1899–1900, there were 4,565 students, male and female, receiving their training in the normal courses of Southern private institutions for the blacks; of these, 1,725 were young men, and 2,840 young women, a disproportion almost as great as that existing in the case of the students in the white private institutions which prepare persons of each sex for the calling of a teacher in the public schools. During the same session, 310 male and 448 female graduates obtained diplomas. The State which was educating in private normal courses, during this session, the largest number of young negroes, both male and female, was Alabama; indeed, the number receiving instruction in this commonwealth formed nearly one-third of the entire number thus engaged in the normal courses of private institutions throughout the South. North Carolina followed Alabama as second, and Tennessee as third in the list, Georgia as fourth and Virginia as fifth. Alabama's superiority in number in 1900 was attributable to the presence in that State of the Tuskegee Institute, which turned out in this year a larger percentage of teachers than the Hampton Institute in Virginia. North Carolina led all the other Southern commonwealths in the number of both male and female graduates in the normal courses of private schools.

The black teachers enjoy the same advantages in the way of summer normals and institutes as the white do. All the

leading normal colleges of the South, whether public, like the State institutions, or private, or only partly public, like Hampton and Tuskegee, have summer sessions of several weeks for the benefit of negro instructors. The course of study embraces all the branches taught in the common schools, and the examinations are strict and thorough. Most of the Southern States appropriate a considerable sum annually for the support of these summer institutes. Many teachers, as a rule, are present at them, and the general testimony is that they greatly increase the efficiency of the entire body of men and women in attendance.

CHAPTER XXVIII

EDUCATION—(Continued)

THE education of the negro is not confined to the public school; in every State of the South there are now found institutions which give every person of the race opportunities for instruction in the highest branches of knowledge, whether designed for professional training or general moral and intellectual improvement. The number of private high schools and academies for the blacks, as compared with the number for the whites, is very small; but, on the other hand, the number of colleges and universities belonging to them is somewhat nearer the number of the like seats of learning belonging to the white people. The public schools take the place of the private high school and academy in the case of the black population to a far greater degree than they do in the case of the white.

In 1900 there were enrolled in the Southern private high schools and academies for the blacks 885 male and 1,242 female students, a total of 2,127, a very large proportion of those individuals of the race who were, in the same year, receiving an education in the entire number of the higher Southern institutions for the negro. Considering all these institutions, we find that in the fourteen Southern States there were, in the session of 1899–1900, 135 private institutions for negroes in which instruction in a collegiate course was given; and that 1,550 male and 421 female pupils were during this session engaged in pursuing this course; this

represented a total of about 2,000 who were receiving an education in the highest academic branches; after all, a very small proportion of the hundreds of thousands of young negroes in the South who annually reach the collegiate age.

With few exceptions, the higher institutions for the education of the blacks were founded and are largely supported by the white religious denominations of both the Northern and Southern States, and also by religious bodies of a different character. The American Missionary Association, for instance, has for many years expended a large amount of money in this way, and several of the most useful colleges and universities for the black race in the South are due to its gifts; this is also true of the American Baptist Home Missionary Society, the American Christian Missionary Society, and the Freedman's Aid Society. Among the church organizations, the Methodist Episcopal, white and colored, the Presbyterian, and the Baptist have been especially liberal in maintaining institutions for the advanced instruction of the negroes. Some conception as to the growth of these institutions from a financial point of view may be obtained from the fact that in 1900 their grounds, buildings, and scientific apparatus were valued at $7,507,053; and that, during the same year, their income from different sources probably exceeded $1,500,000. The following colleges respectively owned in 1900 property in the form of buildings, grounds, etc., that was computed to be worth as much as $250,000: namely, Fisk University, Tuskegee Normal and Industrial College, Atlanta University, Clark University, and the Hampton Agricultural and Normal Institute. There were seventeen institutions owning buildings and the like valued at more than $100,000, and thirty with similar possessions valued at more than $50,000; this was exclusive of the amount of money represented in their collections of books. In 1900, it was estimated that the private institutions for the advanced instruction of the blacks in the Southern States were in the possession of libraries containing 216,285 volumes, and of this number of volumes about

89,000 were owned by eleven of the leading colleges and universities.

The most important of these private institutions are in the possession of considerable endowment funds, which are constantly receiving additions. In one year only, 1900, over a half-million dollars was donated to swell the permanent funds of the Southern private institutions for the advanced education of the negroes, of which sum the Tuskegee Normal and Industrial College, Alabama, received $97,231, and the Hampton Normal and Agricultural Institute, $254,333, the balance being given to the Atlanta University and the Spelman Seminary in Georgia, the Leland University in Louisiana, the Shaw University in North Carolina, the Morristown Normal College in Tennessee, and the Virginia Union University. In 1893, Andrew Carnegie alone contributed about $600,000 to the endowment fund of the Tuskegee school.

The number of students among the negroes, who, in 1900, were receiving instruction in the special professional courses of the different institutions in the Southern States belonging to the race was 1,354; of this number, 849 were studying theology, 37 law, and 299 medicine; 26 were studying pharmacy, and 19 dentistry; while 20 were pursuing a course in order to obtain diplomas as trained nurses.

It is not surprising to find that the largest proportion of these advanced classes of students were preparing themselves to become preachers. There is reason to think, that, if the demand for ministers of the gospel was as great as that for teachers under the public school system—in other words, if the field of work admitted of as many candidates, and of an equally certain salary—the number of theological students would be quite as large as the number of pupils in the normal colleges. In reality, it is only in the cities and towns of the Southern States that the educated black preacher is assured of a pastorate with a church edifice and fixed compensation. The rural pastorates are, with very few exceptions, filled by illiterate exhorters, who earn a

livelihood, not by preaching, but by working in the fields, or in a mechanic's shop. It is a profession for which the negro has a natural talent, and it is perhaps the one in which, from the point of view of fluency and true emotion, if not always of practical morality, he is apt to appear to the most advantage. On the whole, the educated black preachers of the Southern cities have not been unworthy of their sacred calling; many of them are men of genuine eloquence, and use their influence to advance the highest welfare of their race.

In preaching and teaching alike, the negro does not enter into competition with the whites. He has the field, so far as it relates to his own race, entirely to himself. Here his only rival is his fellow negro. In law, on the other hand, the black man has to come in conflict with the white man, and he shrinks, not unnaturally, from this competition, because he knows it to be one wholly unequal. However learned and capable he may be, he is aware that he can never secure business among white people, which is the only kind assuring a lucrative income. The business of the few black members of the bar is almost wholly confined to cases in the police court; it has been observed that, in cases of greater importance, the negroes are not disposed to employ a lawyer of their own race, not always because they are lacking in confidence in his ability, but because they justly infer that a white advocate would have more influence than a black one with a white judge and jury. That this is the true explanation of the small practice of Southern negro lawyers among prosperous people of their own color is shown by the very active practice among this class which capable black doctors now enjoy in all the large cities of the Southern States. Their number is steadily increasing, and they are sharing more and more this special field with the white physicians. Many of these doctors are creditable representatives of their profession, and as the opportunities for their more thorough education in medicine increase, there is reason to think that the general standing

of the Southern negroes as physicians will advance. So far, the field for black dentists has not been a wide one, as faulty teeth are not to be included among the physical defects of the race. Whatever room for dentistry exists among the negroes is certain to be monopolized by black practitioners, as business among this section of the community is not desired by the white.

Of the 1,354 negroes, who, in 1900, were equipping themselves in Southern institutions for a professional life, 127 belonged to the female sex; and doubtless of the twenty students pursuing the course for trained nurses, the whole number were women; this would leave about one hundred to be credited to the other special branches. It seems improbable that any negresses were, during this year, studying theology, dentistry or pharmacy, and it is, therefore, to be concluded that the one hundred, whose profession is unaccounted for, should be set down to law and medicine, especially to medicine, as the calling for which they would be better fitted.

No account of the general educational facilities for the white or black population of the Southern States would be complete without some description of the special benefits which have been derived by both races from the Peabody and Slater funds, and from the gifts of the Southern Education Board.

The Peabody fund is the one that has been longest in existence, and which has accomplished the largest measure of good. It has, from the beginning, been singularly fortunate alike in its board of trustees, men of the greatest eminence in the United States, and in its agents. The original fund consisted of one million dollars, which was subsequently increased to two, the gift of George Peabody, the celebrated philanthropist. In turning this sum over to the trustees whom he had chosen, he stated that the income from it "was to be applied for the promotion and encouragement of intellectual, moral, or industrial education among the young of the more destitute portions of the Southern

and Southwestern States of the Union." There was no restriction as to race. At this time there was no general system of public instruction in these commonwealths. The South had just emerged from a long and disastrous war. The first object of the trustees, acting through their representative, the agent of the fund, Dr. Barnas Sears, one of the most accomplished and farsighted educators the Union has produced, was to direct the attention of the Southern States to the subject of public schools; with this object in view, Dr. Sears travelled over the entire face of those States, and by a series of weighty addresses did much to cultivate a general sentiment among their people favorable to the adoption of a system of public instruction. At the end of this tour he embodied in a report his recommendations to the trustees as to what he deemed to be the best plan for the distribution of the income of the fund; these recommendations were approved, and, in some respects, have controlled the policy of the board ever since.

Dr. Sears urged that the trustees should act in conjunction with State authorities and not with individuals, religious denominations, or private corporations; that aid should be given only to those schools in which a large number of pupils could be gathered together, and which were situated in communities where a model system of public instruction could be organized; that State normal schools, rather than colleges and academies containing normal courses as a part of a general curriculum, should receive the support of the fund; and finally that contributions should be made to encourage the formation of State associations of teachers and the publication of periodicals for their improvement in their profession.

Such were the more salient propositions in Dr. Sears's memorable report. Acting upon these recommendations, the trustees decided to "confine the benefits of the fund to public free schools, and in no case to meet the entire cost of maintaining them." What was to be the maximum contribution in any one instance was to be determined by

the number and color of the pupils who were in attendance; this was to be $300 for one hundred white pupils, and $200 for one hundred black. The smaller amount allowed the negroes was justified by the smaller outlay required for the support of their schools. The appropriation for no single community was permitted to exceed $2,000. At first, the distribution of the income of the fund was confined to a certain number of the large towns of the South, because, as the trustees declared, "in such towns there was generally more enterprise or more ambition to carry the schools to a high degree of excellence." As the principal centres of population became able to sustain by local taxation their own system of public education, the income of the fund was directed to the rural districts, in which it was sought to foster a like spirit of self-help.

As soon as all the Southern States had established public schools—a condition largely brought about by the wise management of the Peabody fund—it was decided by the trustees to be the best policy to spend the interest of the fund in improving the professional training of the teachers, whether by assisting or maintaining the normal colleges or by contributing to the support of normal summer schools and institutes. In this way it was justly anticipated that the income could be turned to the most useful account rather than by dividing it among a large number of public schools.

The most important of all the normal schools, which, under the operation of this policy, receive the financial support of the Peabody Fund is the Peabody College at Nashville, Tennessee. The State also contributes to it about $10,000 a year. In this institution, each of the Southern commonwealths possesses a certain number of scholarships, distributed as follows: Alabama and Arkansas respectively 17; Florida, 8; Georgia, 22; Louisiana, West Virginia, and South Carolina respectively 12; Texas and North Carolina each 20; Mississippi, 13; Virginia, 18; Tennessee, 33; a total of 204. Between 1880 and 1897, 1,436 persons received diplomas from the college; and in the interval

between 1877 and 1897, the total scholarship payments amounted to $383,584.10. As soon as practicable after the school was established, it was raised to collegiate grade in order to equip the students the more thoroughly for carrying out the purposes of the general system of public education. It now gives three degrees: bachelor of arts, a course in which ancient languages are the most prominent feature; bachelor of science, in which the physical sciences have the precedence; bachelor of letters, in which special attention is directed to the study of modern languages, history, and literature.

During twenty years, ending in 1897, independently of the amount contributed to the support of the Normal College at Nashville, and the maintenance of the State scholarships there, nearly $2,000,000 were spent by the trustees of the Peabody Fund in the different States of the South. The sums given since that date would undoubtedly swell this amount considerably. Of this large sum, it would be no exaggeration to say that not one dollar was laid out injudiciously, a noble but a just tribute to the wise management of the fund.

In 1881, Dr. Sears having died, Dr. J. L. M. Curry was chosen to be the agent of the board. Dr. Curry had long occupied a conspicuous position in various walks of life in the South. A native of Alabama; and as a young man, a distinguished member of the legislature of that State, and afterward of the Federal and Confederate Congresses; a zealous minister of the gospel, and a learned professor in Richmond (Virginia) College; a man of vigorous intellect and powerful eloquence; and of the most kindly disposition and genial and persuasive manners—there could not have been found in the entire South another citizen more admirably fitted by long experience and natural talents to be the successor of Dr. Sears, the first agent of the fund. The duties of the position were such as could be best performed by a person who had enjoyed a thorough training as a minister of the gospel, as a teacher, as a business man, as a

LIBRARY
THE
UNIVERSITY
OF
CALIFORNIA



Booker T. Washington, president of the Tuskegee Normal and Industrial Institute.

public speaker, and as a statesman. Dr. Curry combined all these capacities in himself to a singular degree, and, in addition, he was a Southerner by birth and breeding, and, in consequence, possessed that clear insight into the character, and that profound sympathy with the feelings, of the Southern people, which were certain to serve as an inspiration in the management of so great a fund to the highest advantage of both races.

In spite of the great success that had attended the work of Dr. Sears, there were necessarily in so wide a field and with old habits and modes of thought little modified, many obstacles still to be removed before public education could have, in the Southern States, an open path in which to advance. As Dr. Curry himself declared at the time, there were still serious hindrances to the progress of the system "in surviving prejudices, interest of teachers, sparseness of population, impatience of taxation, and financial depression." Here was work for the new agent which demanded something more than the mere judicious distribution of the income of the fund among a definite number of schools for the preparation of teachers. It shows the extraordinary resources of body and intellect of Dr. Curry that, during his incumbency, he addressed more legislatures than any other American ever did, with a view, to use his own words, of "moulding broad and beneficent legislation" in support of the public school system. His field of activity extended from the Potomac to the Rio Grande. Apart from a wise distribution of the interest of the fund, he sought to extend and improve the public school system over this vast area of country by repeated visits to the different States; by observation of the school work in progress everywhere; by conferences with executives and school officers; and by ripe and farseeing counsel. In the death of Dr. Curry, which took place in 1903, the fund suffered an incalculable loss.

In 1882, John F. Slater, of Connecticut, gave a million dollars in trust for the general education of Southern

negroes. The administration of this fund, though restricted to the improvement of one race only, and, therefore, narrower in spirit than the catholic gift of Mr. Peabody, has been so identified with the administration of the Peabody Fund through the possession of the same agent, and the adoption of the same regulations in the distribution of the interest, that it will be unnecessary to touch on it at length.

Similar in spirit to the work that has been done by the trustees of the Peabody and Slater Funds is the work which the Southern Education Board proposes to do. This board was organized for the purpose of promoting Southern education in recognition of the extraordinary sacrifices made by the Southern people in the same cause. The principal objects of the association have been particularized as follows: to increase the usefulness of the public schools, especially in the rural districts; to aid in maintaining and improving the Normal Colleges already in existence; to establish institutions for teachers of the industrial and manual arts; to advocate a greater degree of local taxation, and a larger amount of local contributions, in support of public schools, as a means of fostering a spirit of self-help; and finally to advance the cause of general education by collecting and publishing statistics relating to it.

It is expected that the board will furnish to wealthy citizens in all parts of the United States, who desire to assist in advancing Southern education, a medium through which they can act with the positive assurance that their gifts will be wisely used. Already about a million dollars has been placed at the disposal of the board, and there is reason to think that this is only the beginning of a series of liberal donations to the cause of Southern education. So far, the board has paid out large sums in duplicating amounts subscribed by Southern communities for this object; in North Carolina, for instance, in 1902, it duplicated $4,000 which the people of Greensboro had collected for the use of the public schools of Guilford County; and it also

duplicated, in the same year, the $6,000 which Mecklenburg and Henderson Counties had raised for a similar purpose. It has also presented the State Normal School, at Athens, Georgia, with $19,500, on condition that the State appropriated $25,000 to the same institution. A gift of $10,000 was made to the Georgia School of Technology on similar terms. The board has also subscribed for numerous valuable scholarships in the South, with the prerequisite that they shall be duplicated by local collections.

The public meetings which have taken place at the instance of the board have been among the most useful and inspiring ever held in the South. The admirable addresses delivered on these occasions by men of eminence in the field of popular education have attracted attention throughout the United States. The officers of the board include men of Northern and Southern birth and of such liberal and catholic spirit that under their direction the work of education cannot fail of steady and solid advance. The same spirit that actuated the late Dr. Curry also animated the late president of the General Education Board, W. H. Baldwin, Jr., of New York, who was also one of the warmest friends of the Tuskegee Institute. The Southern Education Board is presided over by Robert C. Ogden, of New York, who, previous to this appointment, had, as chairman of the board of trustees of the Hampton Institute, enjoyed exceptional opportunities of acquiring a thorough knowledge of the educational needs of the Southern people.

CHAPTER XXIX

LITERATURE

WHAT effect has the extraordinary attention given to general education in the Southern States since the end of the great War had in fostering literary productiveness among their people? No just idea of their present condition in this respect can be obtained without some account of such literary influences as prevailed before the abolition of slavery.

Speaking generally, the achievements of the Southern people, under the former system, in the field of literature were never in proportion to their achievements in other fields in which intellectual power played the greatest part. In oratory, in debate, in political writing, in statesmanship, Southern men stood in the very first rank; it may even be said without inaccuracy that Southern men led in each of these spheres of intellectual activity. But in literature, the South was very far behind New England in the number of celebrated authors. Excepting Poe, who is now justly considered with Hawthorne to have been one of the only two imaginative writers of the first order whom the United States has produced, the South had no authors who compared in general reputation with Longfellow, Emerson, Lowell, Holmes, Bryant, Motley, and Prescott. These were all natives, and with the exception of Bryant, citizens of New England. In opposition to this group of remarkable writers, the Southern States could only bring forward

William Gilmore Simms, John P. Kennedy, and, greatest of all, Poe, who, however, was as free from the flavor of the soil of any country as the ethereal Shelley himself. With the exception, at very rare intervals, of an author, who, like Henry Timrod, Philip Pendleton Cooke, and Richard Henry Wilde, struck a light though very musical note, the Southern imaginative writers of that day, whether in poetry or fiction, were of a rather crude, provincial type, with no higher capacity, as a rule, than a capacity to imitate feebly the peculiar manner of some great model. The novels of Simms and Kennedy were very much superior in dramatic and descriptive force to the other Southern novels of that period, but both show even more unmistakably than James Fenimore Cooper, the influence of the romantic school of Sir Walter Scott. When we descend to a lower level of Southern fiction, we find that the only works of that day thoroughly true to nature were such slight humorous sketches as Judge Longstreet's *Georgia Scenes*, and Thompson's *Major Jones's Courtship*.

Some of the most exquisite lyrics ever written in America, however, were written before or during the great War by Southern men; for instance, Tucker's *Days of My Youth*, O'Hara's *Bivouac of the Dead*, Pendleton Cooke's *Florence Vane*, Pinckney's *Health*, Lucas's *In the Land where we were Dreaming*, and Wilde's *My Life is like the Summer Rose*, but not one of these composers of occasional verse afterward improved upon or repeated the attainment exhibited in these small masterpieces. The highest water mark of the Southern essay was the *British Spy* of William Wirt. In the domain of historical writing, the South, during the existence of the old system, practically achieved nothing; the most ambitious specimen of that kind of composition which her writers produced was a State history, a work that was of little interest, even as a collection of facts, beyond the borders of the particular commonwealth whose annals it related. A few acute constitutional disquisitions, and many eloquent occasional addresses have

come down to us from those times, but they have no value whatever as pure literature.

What was the explanation of this comparative barrenness? There were many influences in the life of the Southern people of that day which would have led an observer to expect among them a high degree of productiveness in the noblest fields of literature.

First, the people of the South, especially the people residing in the older Southern States, were sprung from an unmixed Anglo-Saxon stock. The population of Maryland, Virginia, Kentucky, North Carolina, Tennessee, Georgia, and Alabama was, as a whole, of as thorough a British strain —English, Scotch, and Scotch-Irish—as the population of England and Scotland. The English blood everywhere predominated. Virginia was essentially English in all its older parts; so were all the rest of the original Southern colonies, with the exception of South Carolina, where there were many persons of French Huguenot descent. If one of the conditions necessary to literary productiveness in the Anglo-Saxon stock is purity of blood, that condition was certainly not absent in the mass of the Southern people; they were just as unadulterated in this respect as the people of Massachusetts, from whom sprang such a remarkable group of writers in nearly every branch of literature.

Secondly, in native keenness and vigor of mind, the Southern people appeared to be the equals of their kinsmen in the British Islands. If greater brightness and quickness of wits were tests of intellectual power, then they were even the superiors; there was some influence in their more stimulating climate and more open skies which removed the mental heaviness and slowness characteristic of the parent stock. Like all races of a fine type who live in Southern countries, the Southern people were of a vivid, impulsive, emotional temperament, from which a more brilliant display of genius was to be expected than from the colder and more deliberate natures of the inhabitants of the dull and harsh latitudes of Old and New England; and yet in no department

were they so feeble as in the department of imaginative writing, and in no departments were they so strong as in those of political and military action. Not even England herself in her palmiest hour ever produced, in so short a time, such an illustrious group of statesmen as Washington, Jefferson, Marshall, Madison, and Monroe, or a more brilliant group of soldiers than Lee, Jackson, Thomas, Johnston, Stuart, and Forrest. These are groups which belong each to a single period, but in the periods between, there were many men who were celebrated in either war or statesmanship. Had that circle of men led by Calhoun and Davis devoted their extraordinary abilities to the support of principles other than those involved in the maintenance of slavery and State's Rights, their reputation to-day would be far more extended than it is, but their achievements in debate at least revealed the fact that the South possessed a class of public men unsurpassed in intellectual vigor by any set of men prominent in the political life of the old country. And so with the military figures conspicuous at this time—Jackson, Scott, Taylor. During the same period, England, like the South, possessed her famous soldiers and statesmen, but, unlike the South, she also possessed equally famous authors.

Thirdly, the literary unproductiveness of the Southern people did not spring from any lack of a general education. We have seen that, during the prevalence of slave institutions, the higher planting class of the Southern States enjoyed all the advantages of superior private academies, colleges, and universities—that many were trained in those very schools of New England which are supposed to have done as much in fostering a literary spirit in that part of the Union as Oxford and Cambridge have, for generations, done in old England. Indeed, as large a proportion of this higher planting class were as familiar with the best literary models—whether Greek, Roman, or English—as were the more cultivated members of the English rural gentry in the same century. Many of the choicest libraries in the

United States in the times preceding the great War were in Southern plantation homes, especially in homes situated in the States whose history, like that of Virginia and the Carolinas, went back to the colonial age. These libraries, exposed to the vicissitudes of the conditions that for more than a quarter of a century prevailed in the Southern States have, with few exceptions, been dispersed, but those that remain still show the excellent literary judgment with which the volumes were selected. The literary tastes of the Southern people were, indeed, more conservative than the same tastes of Americans in general, and familiarity with the master writers of the age of Queen Anne and the first Georges—Swift, Addison, Fielding, Prior, and Pope—continued longer among them than among other sections of the American people, except the people of New England. We have only to consult the published correspondence of distinguished Southerners from William Byrd down to John Randolph, of Roanoke, to see how imbued with this classical influence were the minds of so many members of their class among the Southern planters. Examine the libraries that were gathered between 1830 and 1860, and like those preceding them in date of formation, they will be found to contain all the leading English and American classics of contemporary publication—the works of all the great living masters of that time—Ruskin, Macaulay, Carlyle, Tennyson, Thackeray, Dickens, Jane Austin, George Eliot, Poe, Emerson, Hawthorne, and many others of hardly less enduring fame. The fountain of literature at which the educated Southern people drank was, therefore, precisely the same as the one that gave strength and inspiration to the best minds of Old and New England, minds that, at the very moment the Southern branch of the Anglo-Saxon stock was sunk in such literary sloth, were producing works of extraordinary power in great numbers.

Fourthly, the absence of a noble Southern literature was certainly not attributable to any want of social refinement. Social refinement is one of the soundest tests of general

culture. There have been no homes rooted in the American soil distinguished for a higher degree of refinement than the homes of the old Southern plantations. The rural life which the great body of the people led brought about conditions very similar to those observed in England; there was the same strong attachment to the plantation, and to the dwelling house and its surroundings, because identified for generations, perhaps for several hundred years, with the history of the family; there was the same exaltation of family ties, because in that simple, quiet, and secluded life, the bonds of kinship took on an importance which they would not have assumed in a more active, hurried, and complex existence. All those fine emotions which are the intensest and most ardent expression of patriotism, were fostered in the breasts of the members of the educated planting class from childhood; they were filled almost from the beginning with the most wholesome form of sentimentality—love of birthplace, love of all the objects associated with it, love of kindred, love of ancestral traditions, pride of race, blood, and family—such were the foundation stones of Southern character, in themselves the strongest proof of sensibility to whatever is highest, best, and most refined in social life, which is but one phase of sensibility to all that is highest, best, and most refined in every department of thought and action.

Fifthly, Southern literary unproductiveness was not due to any lack of inspiring subjects. No class of educated persons, for instance, ever lived closer to nature than the members of the higher planting class. Almost their entire existence was spent in the country; there they were born, there they passed their childhood, boyhood, manhood, old age. From hour to hour, day to day, month to month, and year to year, the vast procession of the seasons moved on before their eyes; and they learned to know every aspect of it, as the sailor knows the starry vault of the heavens, or the woodman the aisles of the forest. All the inspiring, elevating, depressing influences which life near to the face

and heart of nature breeds entered into the inmost composition of their minds and souls. Life on the plantation was, in a large degree, lonely and retired, and therefore it encouraged a reflective spirit in the more sensitive Southern men and women; it seems extraordinary, in the light of this fact, that the South did not produce something of enduring value in the style of contemplative philosophy; still more extraordinary that the strong individuality and the independent spirit and bearing which this secluded country life fostered so generally did not lead to works of fiction in which vivid characterization and powerful pictures of rural manners formed the principal merits.

Passing from the influences of pure nature, it can be accurately said that no people in the United States had had a more inspiring history than the Southern people. Here was the amplest and most vivid field for the historian, poet, and novelist. The remote past of the oldest part of the Southern States offers the most splendid theme to be found in the entire range of modern events for an epic comparable with the *Iliad* and the *Odyssey;* this is the ever memorable embarkation from London for Virginia in 1606 of the little band of Englishmen, their long sail across the lonely ocean, their first view of the scented shores of the Chesapeake, and all the heroic and terrible episodes that soon followed, including the idyllic romance of Pocahontas. The long struggle with the aboriginal tribes on Southern soil was also full of extraordinary incidents of all kinds; it lasted two hundred years, and during that time the woods of the frontier became a dark battle ground, drenched with the blood of men and with the blood and tears of women and children; forever hallowed by memories of heroism and suffering, and forever blackened by the recollection of inhuman atrocities. The drama of the Revolution in the South was full of sieges, battles, skirmishes, and partisan raids. So vivid was the impression which it made, that, fifty years after its close, the Southerners gathered in knots on their courthouse greens, or by their firesides in the long winter nights, and

related tales of valor, fortitude, and suffering. Hardly less inspiring were the episodes in Jackson's campaign in 1815. But the most moving of all for the Southern people was the War of Secession, in which the patriotism was so passionate, the animosities were so bitter, the sacrifices so lavish, the ground contended for so vast, the personal figures so heroic, the final defeat so abysmal!

The dramatic changes, which, in the course of two hundred and fifty years, have taken place in the Southern States have been more numerous than those which, during the same period, have occurred in the other older parts of the Union. These commonwealths share with New England and the Middle States in the romantic color, spirit, and movement of the colonial age, the sufferings, vicissitudes, and triumphs of the Revolution, but the great battles, with one exception, and the other principal events of the War of Secession all took place on Southern soil alone. Fundamental social and economic upheaval in the North ended with Yorktown; it did not end in the South even with Appomattox; indeed, the changes in the Southern States that followed the failure of Secession were far more radical than the changes that followed the success of the Revolution. The career of few countries in the world offers, in so short an interval, such wonderful economic and social transformations as those presented, one after the other, in the career of the South in the colonial, post-Revolutionary, and post-Secession eras. The old order in each case passed away in a terrible conflict of arms. Southern history, in consequence of these great successions of changes which go down to the very roots of Southern institutions at different periods, has a multiplicity of dramatic aspects not to be observed, to the same extent, in the history of the Northern and Western States, where, since the surrender of Cornwallis, there has been no great revolution, no sequence of spectacular events of worldwide interest and importance.

With all these combined influences to foster literary genius of the highest order, why was it that the South remained

before the great War comparatively barren of distinguished writers in every department of letters? It is not sufficient to say that the finest talents of its people were directed to a political career, that their noblest energies were expended in a life of activity as distinguished from a life of introspection and contemplation. During the same period, England possessed every class of men of genius—statesmen of the highest order, soldiers of the first rank, poets, historians, and novelists whose names are among the most famous of modern times. The South also possessed statesmen and soldiers of great capacity, but she possessed but one writer whose works are assured of enduring celebrity. What was the reason for this dearth? The only plausible reason is, that unlike Old England and New England, the Southern States, before the abolition of slavery, were entirely lacking in a literary centre. There was no city in the South approaching either London or Boston in this character; there was not one which, like London or Boston, drawing to itself all those persons inspired by a high order of literary talent, exercised upon this talent that repressive, that expansive influence, which only a great literary centre can. It is such a centre that not only stimulates literary genius by bringing it to close quarters with congenial minds and tastes, but also directs it to the special channels in which it can exhibit itself in its noblest and most lasting forms. Every country in modern times that has produced a great literature has possessed at least one such centre to which the natives endowed with extraordinary literary power have almost unconsciously gravitated. Not only was the South, as a whole, lacking in a general centre of this kind, but each Southern State failed to create a local centre in its own capital; it is true that literary circles of some distinction gathered in Richmond, Charleston, and Baltimore, but these were the only towns which could make the slightest claim to being literary centres even in a small way.

The influences that the abolition of slavery set to work are, in one respect at least, much more likely to foster literary

talent than the influences growing out of the old order of society—all the influences of the new order tend to build up the cities and to nourish every interest that is bound up with town life. The rural society, which formed the most important feature of slavery times, has perished, and with it everything that may have sprung from it to narrow the growth of a Southern literature. Far more than was the case before the great War, the largest town in each Southern State has now become the centre of the highest expression of all its interests; Baltimore, Richmond, Nashville, Atlanta, and New Orleans, to name the principal cities only, are capitals in a far wider sense now than they were sixty years ago, a change not entirely attributable to mere advance in population or progress in the accumulation of wealth. Had that wealth and population increased at a much less rapid rate, these cities would still have been far more of centres in every way than they were under the old order of Southern life. In recent years the chief towns of the South have grown very fast, and this fact has only served to add to their importance from every point of view; they are now the field to which talents of all kinds in the Southern States turn as offering the best opportunities of advancement. The men of literary abilities gravitate to them as readily as the lawyers and physicians who are just starting upon their professional careers. Baltimore, Richmond, Atlanta, and New Orleans have become, for their part of the United States, what Boston, Philadelphia, and New York have long been for theirs, namely, the centres where the rewards of the pen, whether engaged in journalism or occasional writing, are certain to be the most lucrative which the South affords. If the reason for the comparative barrenness of the Southern States in literature under the old order was the absence of literary centres, that condition is steadily passing away as the Southern cities increase in affluence and number of inhabitants. All those other conditions which, before the abolition of slavery, seemed so well calculated to foster a noble literature still remain—the purity of Anglo-Saxon

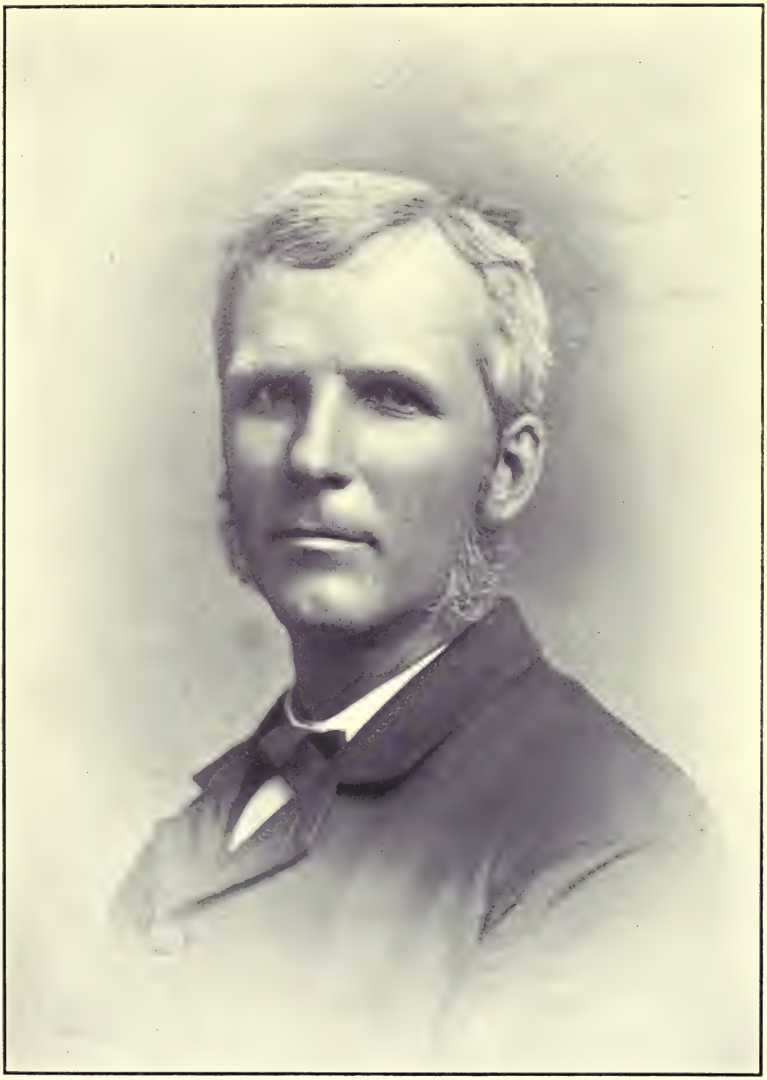
descent, the native keenness of intellect, the careful education, the social refinement, a history marked by an extraordinary wealth of dramatic influences and events, a land distinguished for a wonderful diversity of natural beauty—not one of these has changed. They all still exist to make their impression on the minds and hearts of the Southerners whom the stimulating atmosphere of the new centres of literary culture and rewards shall warm into a life of literary activity.

Already there are signs that the influence of the changed order in the South, whether that influence springs from the growth of the towns or not, is producing a finer class of imaginative writers than arose in the period before the great War. No author approaching Poe in genius has appeared in the Southern States since the defeat of Secession, but a few writers, constituting a noteworthy circle, have come forward who occupy a higher ground, according to the best canons of literary taste, than the circle of writers who held the middle rank in the times when Poe was still alive. From whatever point of view we consider them, whether in truth to nature, originality of conception, purity of sentiment, power of characterization, or beauty of style —as a body they are superior to the leading Southern authors of that period—Simms, Kennedy, and their contemporaries. This small circle consists of George W. Cable, Joel Chandler Harris, Thomas Nelson Page, James Lane Allen, and Charles Egbert Craddock (Miss Mary Murfree). Cable's finest work, *Old Creole Days*, gives a moving picture, in a series of short stories, of Creole life in New Orleans. Harris in *Nights with Uncle Remus* has drawn, with unequalled fidelity, the character of the Southern negro, and has preserved the African folk lore of the Southern States, with its shrewd humor and rude pathos, in a way far superior to that of any other American writer. Page has confined his powers chiefly to painting the life and manners of the Virginian plantation, and in his series of short stories, *In Ole Virginia*, has done for the Old Dominion what Cable has done for New Orleans. Allen has, with extraordinary

insight and vividness, presented many of the most remarkable aspects of life in Kentucky. First of them all, perhaps, in force and variety of characterization, in dramatic power, and in descriptive energy is Miss Murfree, who has drawn the wild life and manners of the Tennessee mountains with strokes as vigorous as they are graphic.

These writers, though none of them can be ranked higher than the second class, are by far the greatest in their branch of literature which the Southern States have possessed at any time in their history. That tendency to exaggerated sentiment and overwrought emotion which brought so much of the Southern imaginative writing of a former period into discredit is absent from their pages; within the limits of their powers, they are essentially true to nature. They mark a long step forward in the history of Southern fiction, especially from the point of view of correct taste and accurate observation. Each has shown excellent judgment in confining his attention to a small segment of Southern life with which, from long contact and study, he was thoroughly familiar. Small as that segment was, it really touched at every point the entire circumference of human nature, and in describing it with the sympathy that belongs to genius, each of these writers has produced works of universal interest, though the plane of action is more or less provincial. The keenness of the insight possessed by the members of the group showed itself in no way so conspicuously as in recognizing that the life which they knew so well, simple and uneventful as it seemed, had all those elements of comedy and tragedy, all that unbounded variety of motive and conduct which distinguish the lives of men who are tossed about by the more violent forces of a much larger world.

It is fidelity in delineating the character and manners among the people who lead natural lives which gives so great a charm to such a series of short stories as Page's *In Ole Virginia*, and Murfree's *In the Tennessee Mountains*. The freshness, the poetry of these short stories does not lie



Brigadier-general Samuel Chapman Armstrong, founder of the Hampton Normal and Agricultural Institute, Virginia.


OF THE

entirely in the writers' minds; it lies largely in the life they present so vividly, because this life conforms more to nature and less to conventionality than existence in a community subject to the conflicting influences of far more complicated interests than those of rural settlements. In the works of the story writers who won reputation under the former system, we see little of the spirit so entirely content to confine itself to the apparently narrow but really worldwide boundaries of the provincial life immediately at hand, whose diversities of character and incident only grow increasingly perceptible the more closely they are examined. It is in the crude pages of Judge Longstreet's *Georgia Scenes* and Thompson's *Major Jones's Courtship* alone that we detect something of the true artistic insight of this group of writers, whose genius has found its highest expression in picturing a purely provincial existence. To a certain extent, Richard Malcolm Johnston was also an important forerunner, but in spite of the unquestionable merits of his stories, they are lacking in those subtle qualities which will give *Old Creole Days*, *In Ole Virginia*, *Uncle Remus*, and *In the Tennessee Mountains* something more than a passing fame.

The most hopeful page in the recent history of Southern literature is the one that is devoted to this justly distinguished group of writers. Whether we regard the works of this group from the point of view of their great individual merit alone, or as showing an advance in artistic finish, both in form and spirit, as compared with the previous fiction of the South, they fill the student of Southern development with encouragement as to what the future is to bring forth in the same department of letters. There are now at play in the larger centres of Southern population influences that are certain to improve the literary taste of the men and women most capable of fine literary achievement. It is possible that these influences consist merely in a closer touch with mankind at large in those numerous ways which distinguish the less provincial situation of the South under the new system. It is a continental and

international audience to which the Southern author now appeals, and the chief requisite to be observed in seeking to catch the attention of this audience is absolute submission to the canons of taste adopted by the most highly cultivated communities of the English-speaking world.

The poetical product of the South since the abolition of slavery has been small, but in Sidney Lanier that part of the Union has given birth to one great poetical writer whose fame is steadily increasing. The highest expression of the poetical spirit in the old South was a beautiful lyric, and this was as true of Poe as of Timrod, Pendleton Cooke, or Wilde. Lanier showed his genius in sustaining a very much longer flight; the *Marshes of Glynn* is, perhaps, the noblest poem that has been written in the United States since the end of the great War. In John B. Tabb also the South has produced a poet who, while unequal to the highest notes of the lyre, reveals within his compass a pure and exquisite talent.

In the domain of historical writing, the Southern States have been almost as barren since the close of the great War as they were before that event; only one very remarkable work of this kind has been produced, namely, General Edward McCrady's *History of South Carolina*, in which an exhaustive study, based upon the most thorough research has been made of that varied and striking subject. Of a somewhat different character are William Wirt Henry's *Life of Patrick Henry*, and Miss Kate Mason Rowland's *Life of George Mason;* these are among the finest biographies that have been written in the United States in recent years. The most notable Southern contribution to colonial history is due to the energy and industry of Alexander Brown, whose *Genesis of the United States*—an imposing collection of original documents—has brought out with great clearness the motives in which the first English settlement in Virginia had its beginning.

The improvement in journalism has been very great in the course of the last twenty-five years; the leading daily

papers of the South—those published in her largest cities—are among the most admirable whether in point of news matter, editorial comment, or physical workmanship, that are issued in the United States. So far all attempts to establish a Southern magazine comparable to the foremost periodicals of this kind at the North have failed. Several reviews have begun publication, but in the end have succumbed for lack of sufficient patronage. The *Sewannee Review*, however, has succeeded in maintaining itself, and now occupies a high place in the critical world.

CHAPTER XXX

SOCIAL CONDITION

BROADLY speaking, no institutions of the South were so profoundly affected by the failure of secession as the social. It is true that it was a great economic revolution to pass from slave to free labor, but the ground is still chiefly tilled by the hand of the negro. The large plantation has been cut up into numerous estates, but the same staples continue to be cultivated. There has been a radical alteration in political conditions, but, on the whole, the representatives of the Southern States in their local legislatures and in the national Congress are drawn from the same general class as they were in the times of slavery. The economic and political life of the South has been transformed, but transformed to a degree that falls short of the change that has taken place in its social life; here the change has been complete so far as the rural districts, in which the overwhelming mass of the Southern people reside, are involved. The French Revolution, with its drastic laws touching the ownership of land, did not sweep away the aristocracy of France one-half as thoroughly as the abolition of slavery swept away the old rural aristocracy of the South. The social condition of this part of the Union is now the reverse of what it was before the War of Secession; then all that was best in the social life of the people was to be found in the country; now all that is best is to be found in the city.

The close of the great War marked the end of a society that had safely passed through all the vicissitudes of several

hundred years. In Virginia, it had begun with the second decade of the seventeenth century; in other commonwealths—Maryland and the Carolinas, for instance—it could trace its origin to a date only a little less far away in time; and in all, it went back to the foundation of the earliest settlements. The peculiar social life of the Southern States, as a body, in consequence of its being coincident with the very existence of these States, had permeated with its spirit the genius of the Southern people from generation to generation, until it had become the most powerful of all influences in moulding their character and destiny. This social life rested primarily on the system of large plantations. In the early part of the history of the older Southern communities—Virginia and Maryland, for instance—when the plantation system, as it existed before the War, was founded, this system derived its strength, not from slavery, but from indentured white service,—which, however, was not unlike slavery in spirit and influence,—but as time went on, its principal support became the institution of slavery itself. As the number of negroes increased, which they did very rapidly after the beginning of the seventeenth century both by natural addition and importation, the individual plantation grew larger and larger in order to create room for the employment of superabundant labor. Not even the opening up of new territory could carry off the surplus slaves. The tendency toward the engrossment of the soil in a few hands was just as remarkable in Virginia, the oldest of the Southern States, as it was in Texas and Mississippi among the youngest, and it was just as strong in 1861, when the War began, as it was two hundred years earlier.

What did this engrossment of land through so many generations mean from a social point of view? It meant that from 1624, when the plantation system became firmly established in Colonial Virginia, down to 1861, when it prevailed in its most extreme form from one end of the South to the other, there existed a class in every Southern community, whose social preëminence rested as distinctly

upon vast landed possessions as the like preëminence of the English aristocracy. The South illustrated anew a fact that had been strikingly illustrated in the history of England: namely, that there is something in the ownership of the soil, confined to a comparatively small number, that gives peculiar social distinction to the class possessing it. The social prestige of a great landed property was rendered the more impressive in the Southern States by the large retinues of slaves; there was, for that reason, a more baronial importance about such an estate than about the like estate of the English nobleman of the same day, whose dependents and retainers were at liberty, if they chose, to transfer their services to another employer. The slave belonged to the master absolutely; the tie could only be severed by the latter's will. The complete subserviency of the relation gave a certain barbaric aspect to the condition of the great Southern landed proprietor, but the social life which centred in him was on that account not the less truly distinguished.

In possession of a great estate in a comparatively thinly settled country, stocked with hundreds of slaves, who were in the habit of looking up to him for everything in life, the Southern landowner, under the old system, was, naturally enough, remarkable for a proud and aristocratic spirit. This was the general tone which men of his class gave to the highest social life of the South. There were, of course, no legally determined and fixed ranks in that life, but the line of separation was as clearly defined, and as firmly drawn as if the hereditary principle of caste had a distinct recognition, as in France under the ancient monarchy. The opportunities for accumulating large estates by the exercise of a great talent for heaping up money were very few. The city shop and country store of the South were narrow fields of operation for this purpose. The highest rank in society was not receiving unceasing additions in great numbers from the lower, in consequence of success in gathering together fortunes, as has always been the case at the North, where trade has ever been an unfailing means

of building up new families. There were, it is true, many accessions in the Southern States, but it required a full generation at least to envelop the intruder in the odor of social sanctity, unless he had secured an unexceptional connection by marriage. Pride of ancestry was one of the most powerful of all social influences in the South, and the ability to prove a long and distinguished descent one of the most valued of possessions.

Unlike the society of England, that of the South possessed no common centre resembling London to direct general taste and govern fashion. The planters of the Southwest visited New Orleans; the planters of South Carolina, Charleston; and those of Virginia, Richmond; but, with the possible exception of Charleston, these cities exercised but little social influence, and the influence of Charleston was confined to the higher planting class of the Palmetto State. The social life of every large plantation community was restricted to the bounds of that community; it was the social life of neighborhoods, which might have a radius of as much as twenty miles; in this circuit everywhere in the older States of the South was to be found a social life reflecting a high degree of culture, refinement, and intelligence. The direct effect of the plantation life was to foster all the influences giving strength and permanence to the family. The love of home was increased, not only by long personal association with the spot, but also by traditions running back many generations into the past. Around it gathered the memories of a family life as old, in many cases, as the first settlement of the country. The house in which the planter resided had been erected perhaps a hundred or more years before, and was hallowed by innumerable events in the family history. Upon the walls hung many portraits, painted perhaps in the costumes of successive periods, while around on all sides were scattered articles of every kind, speaking of a past as well as of the present age.

The ties of family were strengthened, not only by long transmitted influences of this character, but also by the fact

that, under that system, sons, as a rule, settled on lands which had been given them by their fathers in the neighborhood of the paternal estates. In time, there sprang up a community united by the bonds of the closest kinship; and as the years passed, and brothers and sisters had children of their own, these bonds were knit more closely together still by the intermarriage of cousins. A whole countryside was frequently descended from the same ancestors, and the most skilful genealogist often found it impossible to follow the ramifications of the common strain. It needed but the law of primogeniture to make the state of Southern society precisely similar in spirit to the society of England in the previous century.

That society was even more given to hospitality than English society in the country. There was practically an unlimited supply of servants; the abundance of provisions of all kinds was inexhaustible; and there was no effort at display imposing expense and inconvenience. The seclusion of the planter's life threw around the visitor an unusual degree of interest; hospitality, at first a pleasure, took on very shortly a sacred character—it became a duty which it was always delightful to perform. The guest, as often a stranger as a kinsman, was rarely absent from the plantation residence.

Below the highest class of planters there was practically only one great class among the whites, a class which the general changes following the War have brought into the greatest prominence, but which, under the system prevailing before 1860, occupied a position of small social importance. This class, made up of the small landowners, always formed the body of the white population. Its members, as a rule, owned from fifty to two hundred acres of land, which they worked themselves, with the assistance, at the most, of a few slaves.

When the first patents were sued out, it was deemed all-important to take up the most fertile soil as, in the absence of artificial manures, the best fitted for the culture of cotton

or tobacco, and such as was least likely to be exhausted by prolonged tillage. The lands preferred were those situated on the rivers and larger streams which furnished an alluvial deposit. The constant aim of the wealthy planter was to engross as extensive an area of these lands as he could acquire; broad reaches of upland were patented or purchased as a means of obtaining wood for fuel and timber for building, and as affording a wide range for the browsing of cattle. The mass of the white population, the true yeomanry of the country, were confined to the ridges and narrow low grounds of the small streams, the soil of which was inferior in productive capacity as compared with the grounds lying along the large streams held by the wealthy planters.

The class of small landowners represented, in many instances, a high degree of thrift, but in some cases an extreme degree of poverty, according to the character of different holdings. Many of the small estates were cultivated with great care and enabled the owners to live in comfort and abundance. The tables were set forth with a considerable variety of food; there was a slave to furnish the household service; the residence though plain was substantially built and sufficiently spacious; to it were attached small gardens for both flowers and vegetables; also an orchard of fruit trees enclosed as a pen for the hogs; and there were several milch cows, and a horse and vehicle for conveying the family to church. During the week, the owner with his sons and a negro or two hoed and plowed in his tobacco and corn fields. When the end of the year came, he had perhaps several hundred dollars in his chest. If ambitious of improving his condition, he expended his savings in the purchase of more land, by which he was enabled to plant cotton or tobacco over a larger area of ground. The increase from one couple of slaves made a considerable addition to his small fortune. Even when he had no occasion himself for the labor of the young negroes as soon as they were strong enough to work, he could hire them at a profit; many small landowners derived a good

income from this letting of slaves who had been trained by them for some mechanical trade.

The landowner whose entire holding consisted of soil on the ridge was by no means so well off as the members of his own class who owned land on the small streams. The expression "po' white," so freely used by the slaves as a term of opprobrium, was applied especially to these inhabitants of the highlands. The narrowness of their fortunes was disclosed in many ways—in the sallowness of their complexions, resulting chiefly from insufficient and unwholesome food—in the raggedness of their clothing—in the bareness and discomfort of their cabins, which were mere hovels with the most slovenly surroundings—and in the thinness and weakness of the few cattle they possessed. Nowhere could there be found a population more wretched in some respects than this section of the Southern whites, the inhabitants of the ridge and pine barren, men and women who had no interest in the institution of slavery and whose condition of extreme poverty was partly due to the system of large plantations. The abundance of negroes diminished the calls for the labor of white men, which might have been furnished by this class, and the engrossment of land into great estates shut them off from the most productive soil.

The poor white man of energy and intelligence could look forward to but one career which would give him a certain opportunity to improve his condition. He could not hope to get anything but a bare livelihood out of his impoverished acres; the slave mechanics stood in the way of his securing work in any local handicraft, and there were no manufacturing towns where he could obtain a position in a factory; but throughout the South there was a constant need of faithful and resolute overseers. From the point of view of the indigent class of whites, the overseerships were most desirable, not only as indicating a social advance in life, but as offering a very sure prospect of accumulating a competency. This was the beginning of many considerable fortunes in lands and slaves.

The relations of the small landowners with their neighbor, the large planter, were marked by a spirit of kindness, good will and esteem. They looked to him as their natural leader. The line of social difference was never crossed, but there was no barrier to the display of the warmest regard in their personal association with him. The society which they formed among themselves was noted for its homely respectability, but was not remarkable for any features of general interest. The simplicity distinguishing the social life of the leading planters took, in the case of that of the lower, the form of extreme plainness. The existence led by this section of the people was one of unusual seclusion; indeed, their only places for general meeting were the churchyard, the courthouse, and the store, while the furthest point to which they travelled was the town in which they found a market for the sale of their cotton or tobacco. Their entire withdrawal from the world produced a marked primitiveness of character which was transmitted from generation to generation.

There were two influences to maintain great pride of spirit in persons of this social rank even when they had to endure extreme poverty. First, they followed the independent life of the plantation; it is true that their estates were small, but they were absolute masters of their own properties. Secondly, the presence of the slave, a standing object of social degradation, inspired the plainest white man with a sense of his superiority of race, a conviction tending to strengthen his self-esteem as an individual. These influences gave a prouder tone to the whole social life of the common people of the South than would otherwise have distinguished it.

On the other hand, the absence of educational advantages had a considerable effect in sinking this social life below the point which has been reached by the same grade of population elsewhere. Illiteracy, as we have already pointed out, was very prevalent; it was one of the unfortunate results of the old plantation system that it curtailed all educational

facilities by its tendency to reduce the number of inhabitants occupying a given area of country.

Taken as a whole, the common people of the Southern States, during the existence of slavery, were an unusually intelligent, conservative, and sturdy population. The rank and file of the armies of the Confederacy in the War of Secession were chiefly drawn from this class, and surely the world never saw a body of soldiers more distinguished for the qualities that win the respect and admiration of mankind.

The higher planting class of the South staked everything on the issue of the War—their lives, their fortunes, the framework of their social life, their political supremacy, their all. When the more violent influences which the destruction caused by the conflict set in motion had practically finished their work, and this was done in a very few years after the close of the contest, the society in the rural districts of the South was like a vast field of grain over which a reaper had passed, cutting off the heads of the tallest stalks only, while it left practically untouched those of less height. The great planters were, with hardly an exception, ruined in the end, even though they succeeded for a short time in holding on to their estates. But, as a body, the small planters, who had few slaves and who were cultivators of their own ground, remained upon as good a footing as they occupied before the War of Secession began; indeed, the general position of the lower whites of the South to-day is, from an economic point of view, far more advantageous than it was previous to 1860.

This is due to several causes. First, in the breaking up of the large estates, which, as we have seen, were, for the most part, made up of the most fertile and most eligibly situated lands in the country, the small proprietors, who, before the War, had been confined to the ridges and creek bottoms, were able to purchase ground of the finest quality, because offered for sale in small tracts, without competition on the part of the former great and wealthy proprietors. This class, of old, always overbid the would-be buyers of

small means. Many of the richest acres to be found in the Southern States are now owned by such men, who, had slavery been prolonged, would have spent their whole lives in cultivating a poor soil with very small returns. These fertile lands, before the War, remained, generation after generation, in the hands of wealthy planters, and would have so continued had not the failure of Secession ruined the large plantation system and given possession of the rural districts to an ever increasing body of small proprietors.

Secondly, the complete alteration in the economic system of the Southern States has directed the attention of their most enterprising business men to manufactures of all kinds, but especially to the manufacture of cotton. We have seen that the development of this branch of industry, which, before the War, was carried on in a very limited way, has given employment to many thousands of operatives, drawn entirely from among those persons of the rural population who earn a livelihood by cultivating the ground in small tracts with their own hands. Had slavery not been abolished and the large plantation system destroyed, the manufacturing interests would doubtless have continued to languish; and the opportunities now open in this rapidly expanding department of industry would perhaps never have arisen to improve the condition of the poorer classes of the Southern whites.

Thirdly, during the existence of slavery, it was to the interest of the large landed proprietors, who controlled the industrial affairs of every rural community, to train their own negroes in the different handicrafts; there were blacksmiths, carpenters, wheelwrights, masons, bricklayers, shoemakers, and saddlers connected with all the most extensive plantations, and, with hardly an exception, they were the slaves of the owners. The only white mechanics to be found in those parts of the South where the black population was very numerous were residents of the scattered villages and towns. As we have seen, the negro under the new system shows in the country a marked distaste for every branch of mechanics, and the handicrafts there have in

consequence steadily gravitated to white tradesmen. Thus the poorer class of white persons have a means of earning a livelihood and even a competence, of which they were practically deprived before the abolition of slavery; employment in this department of activity is now afforded to tens of thousands of men of their race where, during the existence of the large plantation, employment was afforded to hundreds only, because in reality almost the entire work in this line was done by slaves.

These are the three most important ways in which the old class of small landed proprietors have benefited by the change in the economic system of the Southern States. With increased opportunities for improving their pecuniary standing, it has followed that their general social condition is better than it used to be, but in no social particular as yet has the new order in the Southern rural districts become a satisfactory substitute for that old order which gave the South its social charm under slave institutions. The characteristics of the ruling class of small landowners in the country to-day—which before the War was the class occupying an entirely subordinate social rank—are essentially what they have always been. The prosperity of this class has not been sufficient as yet to allow them to make any real advance in social attractiveness; the life which they lead still removes them from the general currents of the world; they are still the primitive people, as in former times, with social qualities commanding respect, but with none to produce a society so notable as that which has passed away. Education is more general, on account of the establishment of free schools; some social advantages are enjoyed, which, under the old system, were beyond the reach of all except the rich, but in its principal features, the social condition of the rural population remains as it was when subordinated to that of the higher planting class during the existence of slavery. How entirely this latter class has vanished and how wholly the country is given over to the former lower rank in society is nowhere more

conspicuous than in the rural churches. Owing to the increase of the white population, these churches are more fully attended than they ever were, but the families belonging to the old rural gentry are no longer to be seen there.

A general social equality prevails among the whites in all the rural districts. In those communities in which before the War of Secession the points of difference between classes were almost as notable as they are in England to-day, there are now to be found no sharp lines of demarcation, not because poverty has sunk the ancient gentry to the level of a lower rank in life, but because all that remained of that gentry after the War has now disappeared, the result, chiefly, as already pointed out, of the emigration of the members of the generation which has grown up in the course of the last quarter of a century. In the agricultural regions, outside of the towns, there are, as yet, no means of accumulating sufficient fortune to give superiority to new families possessing talent for getting money; the old rural gentry has not been succeeded, even in a comparatively remote degree, so far, by a new gentry which rests its claims to social distinction upon large estates acquired in recent years. In the rural districts, all the tendencies are toward a further consolidation of the existing social equality among the whites, because the subdivision of land means a further progress toward the reduction of the whole number of white inhabitants to the condition of men who work the soil with their own hands. There are no substantial social distinctions among manual laborers of the same race. The small farmer and small planter who are making up to an increasing extent every year the entire body of the rural white inhabitants may hold themselves a little above their white assistants who are without property, but there is no real difference in their social level. We see in the South to-day a vast rural white population, which, as a whole, stands upon the same social footing, a footing of great respectability, but entirely devoid of those charms which made the social life of the rural gentry, during

the existence of slavery, one of the most attractive in the world.

What has become of the descendants of this rural gentry? As a body they are no longer to be found in the country. While many have emigrated to other parts of the Union, the far greater number have settled in the towns of the South. All the influences of the old system, as we have seen, tended directly to the discouragement of the growth of cities; all the currents ran toward a dispersion of the population over an ever widening extent of space. It is now precisely the reverse. The drift toward the subdivision of land signifies a drift toward the concentration of population. The inability of petty landowners to produce on their own estates the artificial supplies they require, since they are not in the advantageous position of the planters under the old system, in this respect, has increased the importance of local distributing and manufacturing centres, both great and small; the towns have become steadily larger each year, partly in consequence of the rising rural demand for manufactured supplies; while the villages have grown because they have drawn to themselves a greater number of tradesmen working in different departments. It has followed that, as the industries of the towns and villages have expanded, the opportunity for employment has increased.

The comparative unprofitableness of agriculture under the present system, unless the land is cultivated by the owner with his own hands, thus cutting the expenses down to the smallest point, prompted the descendants of the old higher planting class to remove to the Southern cities as offering a better opportunity for the improvement of their fortunes. In addition, they expected to find there the best social advantages which the new order afforded. As the result of this change of home, the oldest families of the South, the families once in possession of vast tracts of land on which they had perhaps resided during several centuries, are now to be found in the towns. They are represented

in every city; almost in every village. If we go to some Southern county, which, in the times of slavery was the seat of an intelligent, refined, and cultivated gentry, we shall discover that the only society there possessing any distinction is centred in the courthouse town; and this society is generally made up of the families of professional men whose names are among the most ancient and honorable in the history of their State. The gentry of the South, from having been associated only with life in the country, have become now thoroughly identified with life in the city. The energy and ability that have built up so many Southern towns in so short a time, have been drawn, in largest measure, from a class that, before the War of Secession, visited the city only in winter and looked upon the country as offering all that was highest and most interesting in life to people of birth and culture. In the course of the last quarter of a century many fortunes have been made by representatives of the old rural gentry who have emigrated to the towns, but there has been no disposition in these representatives to return to the life of their ancestors; some have purchased rural estates, but it has been for pleasure and recreation during the summer, and not for occupation throughout the year.

The social life of the South now rests upon the same general foundation as the social life of the North, and as time passes the character of the one will be wholly indistinguishable from the character of the other. The country districts will be occupied exclusively by a great body of small farmers, planters, and their assistants in the field. The whole extent of soil will become, in less than a century, so subdivided that two or three hundred acres will form the average estate. The owners of land, by the vast increase in the rural population which will follow this subdivision, will enjoy to a far greater degree than they do at the present time all the advantages springing from a teeming community—a more frequent and more diversified social intercourse, more varied and more refined amusements, a larger number

of public schools, and a more thoroughly organized and more efficient system of public education. The towns and cities of the South, on the other hand, will become, as they have done in the North, the centres of the greatest accumulation of wealth and the seats of the highest culture and refinement. Here, as in the Northern towns and cities, society will be controlled, to an ever increasing degree, by families whose rise to social prominence has been brought about by the extraordinary talents of the men at their head for building up great fortunes. The influence of mere ancestry going back many generations, perhaps several hundred years, will grow less socially powerful in the Southern centres of population, where the ability to accumulate money already gives the highest personal consideration, just as it does in the like Northern communities to-day. The material spirit will govern the forces in Southern urban society precisely as it has always done in the urban society of the North. Indeed, time will only show more clearly that the defeat of the South in the War of Secession meant the complete social unification of the United States as the inevitable result of the economic unification that followed almost immediately the destruction of the institution of slavery.

CHAPTER XXXI

POLITICAL CONDITION

In studying the political conditions that have prevailed in the Southern States since the close of the Reconstruction Era, we find little in the general character of the local governments of these States to show that they have passed through a great social and economic revolution. On the other hand, when we examine the relations of the same group of States with the administration of national affairs—the weight of their representatives in Congress, for instance, and their influence in shaping the course of national policy—we find many evidences of the injurious effect of this revolution on the national importance of these commonwealths.

Let us first consider the political administration within these States themselves. In a general way, it may be said that no other commonwealths of the Union are better governed in their local affairs; and this fact is all the more impressive when it is remembered that there are two entirely distinct races, in many respects wholly antipathetic to each other, residing together on Southern soil. In the course of the last twenty-five years, there have been numerous conflicts between armed blacks and whites, but such conflicts have been purely local, have been confined to comparatively few persons on each side, and have terminated very soon, generally without the need of military intervention. When such intervention has been required, it has

been carried out promptly and thoroughly. The whole influence of the responsible authorities in the Southern States has been directed to the preservation of peaceable relations between the people of the two races; and it shows the popular expectation of immediate interference on the part of these authorities that, in spite of the existence of the bitterest antagonism, there has been, since the close of the Reconstruction Era, no open war between the whites and the negroes.

The Southern people have been generally condemned for the number of lynchings that have interrupted the course of the administration of the law in their States. These lynchings, as a rule, occur in consequence of some event that strains the relations of the two races. It would be no exaggeration to say that if the South were occupied by white persons alone, not more than one lynching in every hundred that do occur would take place. They grow out of the uncontrollable exasperation caused by race feeling. A crime committed by a negro against a white man is a very different act, in the impression it makes on the white community, from a crime committed by a negro against a negro, or by a white man against a white man. All the passionate emotions lurking in race antagonism are at once aroused—antagonism which serves to fan to a white heat the abhorrence the negro's crime is calculated to excite in itself apart from all animosities of race. It is to these sudden bursts of passion, blown up to a totally blind disregard of the orderly course of law by hatred between race and race, that the numerous lynchings of negroes in the Southern States are altogether due. If this race feeling adds fury to the wrath of the whites when a white man is the victim, the frenzy is simply uncontrollable when the victim is a helpless woman of their own color. Here the force of race hatred is aggravated a thousandfold.

Rape is the peculiar crime of the negroes of the new generation. Before emancipation, this offence was almost unknown. The increase in the number of cases is due to

two causes. First, the young generation of negroes, who, as a rule, have been brought up without any sort of discipline, have now come forward. Accustomed to give way to every bad impulse of their natures, because too little punished to be afraid of their parents and too ignorant to be afraid of the law, it is sufficient for most of them only to see an opportunity to gratify their lust undisturbed to seize it without any regard for the consequences. Secondly, in the times of slavery, the negro was more or less in dread of the white man all the time, and he held the white women of every class in great respect. Emancipation, of course, by taking away the power of the white people over the black was in itself a tremendous blow at the importance of the former in the minds of the latter; and this importance has been further diminished by the fact that the negroes are now so withdrawn to themselves that they are but little associated with the white population. No longer brought up to have any fear of that population; with vagrant habits which give more opportunities than formerly to come upon white women unawares; brutalized by a life in which there is no self-discipline and no self-restraint, and without any anticipation of the legal consequences to curb their bestial passion, it was only to be expected that assaults of this nature would become the most frequent of the serious crimes which the black man commits at the present day. There are periods when rapes by negroes are of daily occurrence in the Southern States, in spite of all the precautions taken by the white women to avoid danger. Whenever this foul act is committed, the white people in the community where it happens are always aroused to ungovernable madness, and unless the criminal is protected by the militia, he is, as soon as caught, invariably strung up in the most summary way.

Passing from the administration of the criminal law to civil affairs, it will be found that in no part of the Union have State finances been more conservatively managed than in the South since the white people recovered control of their local governments. The incredible waste and robbery

of the Reconstruction Era was followed as soon as that era ended by the most careful methods in the handling of the public funds. Nowhere has there been so little peculation and defalcation on the part of officials in charge of the public treasuries; nowhere has the public income been expended with a stricter consideration for the principles of economy, so necessary, during so many years, to be rigidly observed in the Southern States. As the resources of these States have increased, a more liberal policy in the distribution of the public moneys has been adopted, but within such well-defined restrictions that the credit of these commonwealths has been steadily rising. The Southern States, as a rule, have adopted constitutional provisions that limit the power of their legislatures to incur debt.

It will be interesting to dwell briefly upon the extent of the present indebtedness of the Southern commonwealths. Let us begin with West Virginia. That State has practically no debt, as it has always refused to acknowledge its liability for the third of the very large debt of Virginia before the division, which was set apart as its just share of those obligations. There have been numerous attempts to enforce recognition of this one-third, but so far without success. Virginia proper has settled the remaining two-thirds of the original State debt on a basis acceptable to its creditors, and the State's securities have for many years been rising in value. In January, 1903, an adjustment was effected of the claims and counter claims of the State and the national government. The State debt at that date amounted to $24,476,412, the principal part of which is represented by bonds maturing in 1991.

The State debt of Kentucky in 1902 was computed to be only $1,171,394. This, however, was exclusive of the irredeemable bonds held by the Board of Education; these consisted of State bonds amounting to $1,327,000; of county bonds amounting to $378,946; and of new school bonds, to $606,650. In January, 1902, the sinking fund of the commonwealth had grown to $1,146,130.

The total interest-bearing debt of the commonwealth of Tennessee approximates $15,946,000. There are still a certain number of outstanding bonds which have not yet been funded.

Under an Act of its legislature, the State debt of North Carolina was funded in 1879, and now amounts to about $4,117,350. The unfunded but recognized and fundable debt is estimated at $240,420.

The total valid State debt of South Carolina has been reduced to $6,846,082.

The valid bonded State obligations of Georgia are computed at $7,636,000. In addition, the commonwealth recognizes a debt due to the State University equal to $90,200, which is the total amount of the Landscript Fund.

The total bonded debt of the commonwealth of Florida in 1902 was estimated at $1,032,500. The greater part of this belongs to the Educational Fund of the State.

In the same year the bonded debt of Alabama was estimated at $9,357,600. The revised constitution of 1901 prohibits the State from increasing its obligations unless for the purpose of repelling invasion and suppressing insurrection.

In 1901 the total obligations of the commonwealth of Mississippi did not exceed $2,887,026. Of this sum, $2,200,227 was represented by the School Fund, on which only interest had to be paid by the State.

The total bonded debt of the commonwealth of Louisiana in 1902 was estimated at $10,877,800. In addition, there were State obligations in the form of "baby" bonds and certificates amounting to $913,597; and also outstanding bonds having a face value of $3,953,000, but these the legislature, for several reasons, declined to acknowledge.

The total bonded obligations of the commonwealth of Arkansas in 1902 were estimated at $1,256,000. The outstanding debt, which, however, the State declined to recognize, amounted to about $8,706,773.

The total bonded State debt of Texas in 1902 did not exceed $3,989,400. In the same year the School Fund of the commonwealth was computed to be $10,895,147.91.

The average rate of taxation in the Southern States, excepting Maryland, Virginia, Alabama, and Louisiana, on every one thousand dollars' worth of real estate, personal, and railway property is about $4.50. The tax rate is lowest in West Virginia and highest in Mississippi. In some of these commonwealths the rate has fallen in the course of the last twenty years, while in others it has risen; in Tennessee, for instance, it has declined since 1871 from $6 to $3.50, and in Arkansas, from $10 in 1876 to $5.50 in 1900, but in nearly all the other Southern States the tax rate has advanced.

In treating the subject of public education, we have dwelt on the liberal spirit which the Southern States have displayed in sustaining the public schools. The same spirit has distinguished the general action of these States in all other matters relating to the public welfare. Every commonwealth, for instance, has set up a special bureau for the promotion of immigration; some have established departments for the advancement and protection of labor; and all, departments for the encouragement of agriculture. In recent years, boards of commissioners have been appointed to regulate the railway traffic within the boundaries of their respective States; and in the same spirit, commissioners for the supervision of the insurance companies have been named.

If we look into the personal character of the legislative bodies annually assembling in the South, it will be found that, in integrity and devotion to business, they compare most favorably with those that made the laws under the former system. It is doubtful, however, whether they are quite equal in ability to the bodies which used to meet before that system passed away. The difference is still more noticeable in the representation in the national Congress. Regarded as a body, the Southern delegation shows

a distinct decline in political talents in the course of the last twenty years; the leading Southern public men of the present day are not quite equal even to those who occupied the stage during the first ten years following the close of the War—men who, as a rule, had received their first training under the old political order; they are inferior in a marked degree to the typical statesmen who gave the South so much reputation for political genius before the abolition of slavery.

The decline in political talents in the South is mainly due to the destruction of the rural gentry, from whom most of the famous leaders of the past were drawn; to the dwarfing influences springing from the subordination of all political issues to the one great issue, which is social and economic in its character as well as political,—the domination of the whites in Southern affairs; and finally, to the withdrawal into the different departments of business and education of the ablest men the Southern States now produce. These causes are chiefly responsible for the secondary part which the South now plays in national politics.

The history of few countries shows a more remarkable group of politicians and statesmen, if we regard simply their astuteness as leaders, and their capacity as debaters, than that circle which for a generation or more upheld the cause of the South in the national Congress. How were they trained? As a rule, the leading Southern statesmen belonged to the higher planting class, a class that, from early manhood, was accustomed to the management of great estates requiring the most prudent, careful, and discriminating supervision. In no small degree, success in carrying on one of these estates not only meant a capacity for ordinary business details—a capacity for private administration as it were, which was the first step to acquiring a capacity for public administration—but it also meant an ability to control and direct men. It is true that these men were, for the most part, slaves, but a marked executive talent was

necessary if they were to be used so as to obtain the best results from their labor. The Southern plantation in reality was a school that, on one hand, imparted the training of a large manufacturing establishment, and on the other, of a small monarchy. The owner was taught at the one and the same time how to carry on a complicated business, and also how to govern persons of his own and an alien race. This was an admirable preparation for the tasks of statesmanship, for statesmanship has to deal with the same conditions, only on a larger and more general scale.

Moreover, at the very time that the young planter of ambition was receiving his first education in the administration of affairs and the government of men in this private school, he was generally beginning his public career. With very few exceptions, the wealthiest landowners of the South, before the abolition of slavery, were elected to the legislature in the first few years after they came of age; the duties of this office occupied only a few months in the course of the year, and, therefore, did not interfere with a careful supervision of plantation affairs. As a member of the State Assembly, the young planter acquired his first practical experience of public business, and here he obtained a valuable training for the larger sphere of national politics. If a man of unusual ability, he was soon promoted from the legislature to Congress, and remained a member of this body for years. There is probably no other instance in modern times in which public men, who were not hereditary lawgivers, like the noblemen of Great Britain, exercised such a controlling influence over the popular political sentiment of their native States. Political life was from the very beginning of national independence considered the only true sphere of action for men of extraordinary talent among the Southern landowners. The spread of the institution of slavery, and the attacks upon it, prompted the South to put forward her very ablest citizens in its defence; this fact gave additional importance to a political career, and greater distinction to political capacity. Everywhere in that division

of the Union there was found a trained body of men drawn from the planter class who displayed the highest aptitude in local and national administration. Slavery united the Southern white population and gave renewed force to the leadership of the large landowners.

As we have seen, the abolition of slavery and the influences following that event destroyed the large plantation system, and dispersed the entire body of the rural gentry, so productive at every period of distinguished statesmen. The peculiar local environment that had prepared these men for their public career was swept completely away, and all that remained of the higher planting class was gradually forced to take refuge in the cities and towns. Here no influence was at work to maintain the great political talents shown by this class in a different situation. The whole attention of its descendants was, from the beginning of the new régime, devoted simply to the task of earning a subsistence. Men who, had not the War blasted the old rural conditions, would have given up their lives to plantation and political affairs, were compelled to turn to the practice of law or medicine, to engineering, shopkeeping, or manufacturing in order to obtain an income for the support of themselves and their families. Under the pressure of this necessity, the ambitions of the entire upper social class of the South have undergone a radical change. We now see prevailing in all the Southern communities where the highest culture is to be found that same desire for material success which has always characterized the like communities of the North; the bearers of the names so long distinguished in the plantation life of the Southern States have become leaders, not in the political field, but in the fields of education, manufactures, railroads, and the professions.

Under the former system, the mass of the rural population was guided in its political sentiment entirely by the higher planting class; though enjoying but few intellectual advantages, no men of their social standing in any part of the United States were better informed as to the

current politics of their own country. This was due to the extraordinary attention paid to public speaking during the existence of slavery. The issues of the day were, in former times, thoroughly discussed by opposing debaters; court day was the principal occasion of the month; on this day, the small landowners gathered on the court green, and from thence carried home for private thought the knowledge they had acquired while listening to the public discussions. The hustings was the school in which the public representatives gave political instruction to the mass of citizens, who were necessarily drawn from the lower ranks of life. The political education acquired under these circumstances by the voters at large was both accurate and extensive.

With the disappearance of the large planters and slaveholders, the political guides and teachers of the citizens as a body, there was left in the rural districts, where the overwhelming majority of the voters still reside, no set of persons who could adequately fill their place. They have been succeeded in only too many places by small county politicians, whose first object is not to educate the people in sound political and economic principles, but merely to find out what the people prefer, and to carry out that preference, whether or not proper and judicious in itself.

The decline in the political knowledge of the great mass of Southern white voters is, in chief measure, due to that unhappy condition which forms for so many of the public men of the South the only real source of their power, namely, the existence of but one real issue in the political life of the South—the maintenance of white supremacy; to that issue all economic and political points of difference agitating the country at large have, for a long series of years, been almost entirely subordinated. It is an issue that has done much to intensify the provincialism of the Southern States, and in doing so, to delay the political enlightenment of the white voters, upon which is absolutely dependent the recovery by these States of something of their old influence in national politics. With an enormous

number of black voters threatening the stability of Southern institutions, and periodically reducing all politics in the minds of the white citizens to the question of the preservation of these institutions, it was to be expected that the white voters would appear unequal in breadth of political knowledge to the same class of voters previous to the War of Secession, at which time, until the slavery agitation overshadowed all other questions, the white people divided into parties on thoroughly national issues, and the leaders strove to direct public sentiment and not to follow it.

Wherever in the Southern States the blacks greatly outnumbered the whites, recourse, during many years, was had to various means, more or less violent, to save the community from those terrible evils which an unrestricted negro suffrage had precipitated in the times of Reconstruction. That frightful period of waste, ruin, and humiliation was never absent from the memories of the white people; and they firmly resolved that it should never be allowed to return, if any means at their disposal could prevent it. The temporary supremacy of the black man here and there in the Southern States had brought about local calamities so entirely of the same character as the calamities which had formerly, through the prevalence of the same condition everywhere, afflicted the whole South, that the white people were made all the more determined that it should not be suffered either to continue in localities for any length of time, or extend itself to their States at large. Such a condition of affairs was inevitable, if, in entire commonwealths like South Carolina, Louisiana, and Mississippi, or in parts of commonwealths, like the "black belts" of Virginia, North Carolina, and Alabama, the negro should be permitted to cast his ballot unrestrained. Long after the close of Reconstruction, the set policy of the whole body of black voters was to use their right of suffrage in opposition to the whites, no matter which side of a question the latter might resolve to support. This was the one motive of action in the polling booth that practically received the approval of all

the negroes. Remembering the indescribable orgy of the Reconstruction period; profoundly impressed, through the transmitted experience of hundreds of years, and the personal observation of a lifetime, with the mental and moral deficiencies of the blacks as a people, which unfitted the vast majority of them to govern even themselves; and eagerly solicitous to establish permanent order and lay the foundations for the lasting prosperity of their States, it was only natural that the Southern whites should have directed their entire energies to rendering negro suffrage nugatory. This privilege of voting, which had been thrust upon the blacks without their seeking, was destructive of every interest necessary to the welfare of the South, as shown by the practical results wherever the race had obtained control. Moreover, it was destructive of the well-being of the negroes themselves, because their prosperity was inextricably bound up in peaceful relations with the white people; such relations were impossible as long as the negroes continued to cast their ballots in a herd simply as black men, and not as citizens, regardless of color.

The methods that were at first adopted by the whites to prevent the blacks from voting, had undoubtedly a demoralizing influence on the general tone of the community. Indeed, this influence was only saved from being utterly ruinous to the moral health of the white people by the prevailing impression among them that the bulk of the negroes just emerged from slavery were as incapable of exercising the right of suffrage intelligently as the mules and oxen that drew the plows and wagons; and that, from a patriotic point of view, it was as obligatory to suppress their votes as it would have been to suppress the votes of all the Southern mules and oxen, had a Republican Congress, in the spirit of Caligula, who made his horse a consul, seen proper to confer the suffrage on these animals. During many years, even the most respectable class of whites in the Southern States condoned the frauds committed to deprive the blacks of the ballot; but as time passed on, and the South began

RIGGS LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA



Carnegie Public Library at Atlanta, Georgia.

to grow in prosperity in every department of affairs,—largely in consequence of the practical removal of the negro from politics,—a sentiment sprang up and grew stronger and stronger that the hour had come for the adoption of legal methods for the destruction forever of the possibility of the black man's becoming again a disturbing element in the political life of the Southern States. It was seen that the hour was ripe for the introduction of such methods, now that public opinion at the North had undergone a change in its attitude toward negro suffrage. The Northern people had gradually come to think, in the light of the order and prosperity observed throughout the South under white rule, as compared with the disorder and ruin prevailing under black, that it was better, not only for the Southern States, but for the entire Union, that the white citizens of the South should be left in absolute control of the affairs of their own commonwealths—that it was better for the negroes themselves that all causes of antagonism between them and the Southern whites should be removed as much as possible—and that the evils of negro suffrage were such as, after all, the people of the South understood more thoroughly than the people of the North. Twenty years after the close of the War, it was very generally acknowledged by all thoughtful Northern persons that a great mistake had been committed in conferring the privilege of voting on the freedman so soon after he emerged from slavery—that a step backward was the wisest step to take—and that in taking this step the South was conforming strictly to the suggestions of the soundest and most conservative statesmanship.

The first Southern commonwealth to adopt constitutional provisions designed to restrict, if not practically to destroy, negro suffrage altogether, was Mississippi, a State that had suffered with peculiar severity during the era of Reconstruction, and which was burdened with a black population vastly in excess of the white. The convention met in 1890, and made it a part of the fundamental law of the State that no citizen shall be permitted to cast a ballot who

is unable to read any section of the national constitution submitted to him, or unable to understand it, or give a reasonable interpretation of it when read to him. Under this clause of the State constitution, which on its face is an educational qualification of the suffrage, the discretion is practically vested in the registration officers to shut out from the polls the great host of negro voters, who, with little jar to the most sensitive conscience, can be easily pronounced incapable of comprehending the meaning of any section of so abstract an instrument as the national constitution.

It has been found that this constitutional provision has not only swept away the negro vote in Mississippi, but also greatly cut down the white vote, largely because there is now no special inducement for white men to go to the polls. In 1898, which was, in this respect, a fairly representative year, only 27,636 ballots were cast in the Congressional elections. In 1900, the number of persons who voted for president did not exceed 59,073.

In 1895, South Carolina, following the example which had been set by Mississippi, adopted a constitutional provision intended to limit negro suffrage. Up to January 1, 1898, the registrars were empowered to reject all applicants who were unable either to read or to understand and explain any clause of the national constitution submitted to them. But after that date, all who were able both to read and write any section of the constitution to which their attention should be directed by the same officers, or could prove the possession of a certain amount of property, were to be allowed to enjoy the right to vote.

The first clause of this provision, in its practical operation, was exactly similar to the suffrage clause in the Mississippi Constitution—the registrars were at liberty to exclude the great body of negroes as incapable of meeting its requirements. Having by these means gotten rid of the bulk of the black voters, the constitution then, after a certain date, applied a qualification that would fall with equal

effect on white and black men alike. There was no room allowed in the second clause for the exercise of discretion on the part of the registrars; they would be compelled to enter the names of all applicants of either race who could conform to the conditions of the law.

It has followed very naturally that, under the operation of the qualified suffrage in South Carolina, the vote in that State in both presidential and Congressional elections has fallen off very much. In the choice of Congressmen in 1898, for instance, only 31,774 ballots were cast, and in 1900 the ballots cast in the presidential contest numbered only 50,808.

Three years after South Carolina framed its constitution, Louisiana took a similar step to control negro suffrage. In its new fundamental law, adopted in 1898, it was provided that no one unable to read and write should be allowed to vote unless he was the owner of property assessed at an amount not smaller than $300, or unless he was entitled to vote prior to January 1, 1867, or was the son or grandson of a person who had enjoyed that right.

The latter provision, known as the "grandfather clause" of the constitution, practically admitted to the suffrage the entire white male adult population whether as individuals they could read and write or owned property or not, while it excluded that very large proportion of the black male population which was wholly illiterate and without any accumulated means.

One year after the adoption of this constitution, the number of registered negro voters in Louisiana was cut down by the general operation of the suffrage clause from 130,344 to only 12,902. The total registration, white and black, declined from 294,432 to 67,240, an indication that a large proportion of the white men entitled to cast a ballot failed to take advantage of the privilege.

The constitutional provision qualifying the suffrage adopted in North Carolina in 1900, was in substance very similar to the provision adopted by Louisiana; there was

the same requirement as to literacy in the voter, unless he was a legal descendant of a person who had enjoyed the right to cast a ballot prior to January 1, 1867. This excepting clause differed from the one in force in Louisiana in the reservation that it should cease to operate in 1908; in other words, if the male descendants of persons possessing the right to vote previous to 1867 should fail to register within the prescribed time, they would be deprived of the suffrage unless they showed that they could read and write. All voters coming of age after 1908, whether white or black, will in North Carolina stand upon precisely the same footing because subject in registering to the same educational qualification.

In Virginia, an educational qualification was inserted in the constitution recently adopted. There is no "grandfather clause" in this instrument, or other device especially designed to cut down the number of negro voters.

The long step between the "understanding clause" in the Mississippi constitution, and the educational clause in the new constitution of Virginia shows a distinct advance in Southern public opinion as to the proper means of depriving the negro of the suffrage. It should, however, be remembered that the black population of the Gulf States is a more dangerous menace to peace and prosperity than the smaller black population of the Old Dominion, and, therefore, required a more drastic plan in dealing with it. The new constitution of Virginia, nevertheless, is one of the most conspicuous of recent foreshadowings that the Southern people will finally do away with the evils of the Fourteenth and Fifteenth Amendments by some means less palpably a subterfuge than "grandfather" and "understanding" clauses in their State Constitutions. Not even an educational qualification, however, is a permanent solution of this difficult problem. In the end, the right to vote in the Southern States will be based on a double qualification—education and property—and not on the alternative—education or property—as now prevails in several of these States. The

additional requirement as to the possession of some accumulated means will go far to shut out the really dangerous influences of negro suffrage; the black property holders are found to be as conservative as the white, and they represent distinctly the most intelligent and provident section of their race in the South.

Mississippi, South Carolina, Louisiana, North Carolina, Alabama, and Virginia have in turn framed a constitutional provision restricting the suffrage, and this example is certain to be followed in time by Arkansas, Tennessee, Georgia, Florida, and probably Maryland. Each new State adopting such a provision is likely to go nearer to the heart of the difficulty and in the end, in spite of all the plausible claims of manhood suffrage, the entire South will base the right to vote, regardless of race, on the double foundation stones, education and property, the best guarantee that the affairs of all its communities will be directed and controlled by its most capable and conservative citizens.

CHAPTER XXXII

GENERAL SUMMARY

In surveying, in a general way, the entire course of Southern development since 1876, with a view of forecasting the condition of the Southern States, say, at the end of fifty years, we discover certain influences at work which have steadily broadened their scope until they are now more powerful than all others in advancing the prosperity of these commonwealths. These influences spring from the subdivision of lands; the diversification of agriculture; the growth of manufactures; the extension and consolidation of railroads; the spread of education; the more rapid expansion of the white than of the black population; and finally the restriction of the suffrage. In these seven facts of supreme importance are to be found the very kernel of all that the Southern people have accomplished since the abolition of slavery; they are the foundation stones on which the superstructure of Southern material greatness is fast rising; and they are also the stars of hope that point to ever-widening fields of intellectual achievement.

First, the subdivision of land. What does the subdivision of Southern lands mean? It means that, in time, the entire surface of the Southern States will be cultivated on the intensive system. As the holdings in these States gradually become as small as they have long been in the prosperous commonwealths of the North and West, it will be increasingly to the interest of the proprietors to bring

their fields to the highest pitch of productiveness, and this can only be accomplished by a thoroughly scientific tillage. The wasteful methods of agriculture which the large estates of a former day encouraged, and appeared to justify, will give way to methods remarkable for minute care and economy. These new methods will not only greatly advance the welfare of the small landowners, but they will also completely change the general appearance of the Southern country. A vast proportion of that country has been long marked by such an air of neglect and thriftlessness as to be a ground of severe reproach and censure against the native proprietors; indeed, it has been difficult for strangers visiting many parts of the South to believe that her agriculture was many degrees removed from that of a region only half civilized. The soil has been allowed to be washed away by the rains, or to grow up in unsightly grasses and stunted trees; buildings have been suffered to remain out of repair; farm implements have been left to decay out of doors; and roads to lose all resemblance to public highways. Subdivision, even before it has reached its last stage, will bring about an alteration in all these unhappy conditions. The present enormous disproportion of ground covered by a wild woodland will disappear; the area in such growth will be greatly narrowed, but the trees that remain will be more carefully preserved. The face of a large part of the country will not, as now, be like a vast forest, with clearings at intervals, as if the first settlers had only recently arrived; on the contrary, the South will, under the final operation of the influences springing from the subdivision of its lands, acquire the aspect of an open, finely cultivated region, with belts of woodland, here and there, managed in accord with the most scientific principles. In other words, these commonwealths, as a whole, will come to resemble the most favored portions of the Northern and Western States.

It is not to be expected that, in the future, when the population of the United States has risen above a hundred

millions, any large section of the country will be allowed to be cultivated only in part. If there were no tendency toward the subdivision of Southern lands (a subdivision at present confined to the native inhabitants of the Southern States), that tendency would inevitably spring up in time as a consequence of immigration from the more crowded Northern and Western communities. It is true that so far the volume of such immigration has been small, but it must steadily increase as the room for a larger population in the North and West narrows, and greater attention is directed in those quarters toward the, as yet, partially cultivated lands of the South. The present causes of discouragement to persons who are turning their eyes toward these lands as a possible place of residence will gradually pass away. Already the comparative isolation and remoteness of a home in a Southern rural community are diminishing with the rapid growth of the native white population, and these drawbacks would soon be further curtailed by a steady current of foreign and domestic immigration. Then again, as the native population grows larger, the number of public schools and churches and the opportunities for social enjoyment and intellectual recreation will increase.

The subdivision of Southern lands must disperse in a remarkable degree those congregations of blacks that have so long been a serious barrier to foreign immigration, because such subdivision will mean a decline in the demand for negro labor, in itself the first long step toward a harsher condition of life for the race. Such a condition will check their numerical growth in the rural districts; and it will also force large numbers into the Southern cities, where they will always find employment in the performance of household service or the rough work of the streets; but here they will continue to show that same high rate of mortality which to-day is so destructive to the urban black population everywhere. Subdivision of the land will also have the effect of driving a great multitude to the towns of the North and West. Pressed to its extreme limit—a limit which may not

be reached for a century or more, a short time after all in the history of a people—the subdivision of the lands of the South will elbow the bulk of the race from that part of the United States to such an extent that the negro will no longer be an obstacle to the settlement in the Southern country of hundreds of thousands of immigrants drawn from other portions of the Union or from foreign lands.

Second. Diversification of agriculture. During many years the agricultural prosperity of the South was almost entirely dependent upon the cultivation and sale of three or four great staple crops. Of these, cotton was the first, both in volume and in profitableness. There is still a paramount disposition in many parts of the Southern States to make one crop practically the only crop of the plantation, whether this be cotton or tobacco; all other crops are neglected; the very meat eaten by the landowner's family and most of the forage that supplies food for his live stock are bought, though the soil and climate are as well fitted to the production of bacon and hay as the soil and climate of those other parts of the Union from which these commodities are obtained. Taking the South as a whole, however, there are numerous signs that point to an increasing tendency toward the diversification of the output of the farms and plantations. As we have shown, the amount of meat now raised for local consumption in this region is steadily growing; and the same is also true of the different cereals.

The most striking form that this diversification of crops is assuming is the production of vast quantities of fruits and vegetables in all those parts of the Southern States adapted to such culture, and also in easy reach of the principal markets of the North and West. Independently of the mere addition to their wealth which these States derive from their trucking interests, there can be no doubt that the rapid expansion in this department of agriculture is the most notable proof that Southern proprietors are ready to take advantage of those diversities in their soil and climate which make their section the best fitted in the Union for a great variety

of valuable crops. Fifty years ago, the lands which now bring in hundreds of thousands—it might even be said, with truth, millions—of dollars annually were devoted to the cultivation of very inferior tobacco, cotton, or corn. Now, a dozen different kinds of vegetables and small fruits are planted in these lands; in no single year does the market sink in price for them all; one at least, and often all, in the same year, are disposed of at a very satisfactory profit. In this respect, if in no other, the wisdom of diversifying crops has been strikingly illustrated in the case of the trucking lands of the South. Diversification is also directing more careful attention to the general capacity of Southern soils. Not only will Southern horticulture be vastly extended, as the fitness of different regions for different fruits comes to be clearly understood by thorough experimentation and observation, but floriculture also will grow to be one of the most important industries of the South as soon as the proper means of transportation have been generally adopted.

The rapid increase in the number of new manufacturing towns in the South is doing almost as much as Western and Northern markets in promoting the diversification of Southern agriculture. The planters and farmers are everywhere liberal subscribers to the stock of a new mill, as such a mill becomes at once a purchaser, not only of their cotton crops, but also of a great variety of other products which the landowners are led, by their proximity to the factory, to raise.

The steady growth of the older cities is exercising a similar influence. Dairying, for instance, is assuming yearly greater importance in the economy of all farms in reach of the large centres of Southern population.

The increase in the number of railways also, by affording estates remote from towns and cities a quick means of transporting all perishable crops to market, now brought practically close at hand, has done much to foster the tendency toward a diversification of products.

Third, the growth of manufactures. A more distinct foreshadowing of extraordinary wealth and prosperity in the

future than even the growing diversification of farming products in the South is the steady expansion in every department of Southern manufactures, but especially in that of cotton goods. During a long period in their history the Southern States were content to be simply producers of raw materials, not one of which, with the exception of tobacco, went, in Southern factories, through the prolonged manipulation that gives them their final shape in the markets of the world. During the course of nearly fifty years these States vigorously protested against the import duties, although these duties would have built up manufactures within their own borders had their people been disposed to turn their attention to this department of endeavor. Their hostility to tariff laws, on the ground that such laws were unjust to communities desirous of producing only raw materials, found expression in the doctrine of Nullification, and it also exercised a powerful influence in bringing on Secession. When the statesmen of the South came to frame a constitution for the new Confederate government, one of their first acts was to insert a clause prohibiting the passage of tariff laws directed wholly to the encouragement of manufactures within the bounds of the new nationality. The true economic destiny of the Southern States was decided by them to be to produce raw cotton, raw tobacco, raw rice, and raw cereals.

This made the centre of every Southern community the largest plantation, and not, as in the Northeastern States, the nearest town or village. As long as the seasons returned in their orderly course, and the sun, shining down upon the open fields, warmed the seed of the cotton, rice, and tobacco plants into life, and nourished the boll, pod, and leaf until they expanded into their final shapes, just so long the Southern people, as a mass, saw with comparative indifference, the vast wealth which the manufacturers of Old and New England were piling up by converting into a thousand different forms the raw materials grown under Southern skies. From the beginning of the colonial age,

the Southern planters had been satisfied to exchange these raw materials for such manufactured articles as could not be made by the rude and coarse hands of their own slave mechanics and artisans. As the demand for tobacco, cotton, and rice grew with the increase in the wealth and population of the other parts of the civilized world, it seemed all the more the wiser policy that the Southern people should confine their energies to the production of these great staple crops. The influence of habit descending from a remote period, the spirit of an economic system that was founded upon a community of plantations, an immemorial love of life in the country, and contentment with the profits of agriculture, though dependent on changes of weather as well as on fluctuations of the market—all served to strengthen the conviction of the Southern people that their welfare was best subserved by their declining to leave the path which their fathers had followed so successfully, and which nature itself seemed to have marked out for them.

The destruction of slavery, and the new influences that began to operate almost at once after that event, have completely altered the South's economic point of view. That part of the Union is still the principal agricultural division of the United States,—under free institutions, its volume of agricultural production very much exceeds the volume under slave institutions,—nevertheless, it has now laid a broad foundation for manufactures that already compare most favorably, both in variety and extent, with the manufactures of the countries leading in this department of activity. Already, the South has come practically to monopolize the making of coarse cotton goods, and in time is certain to obtain an important share in the making of the finer fabrics. It is steadily increasing the volume of its iron manufactures; even now, it is one of the largest producers of pig iron in the world; and is beginning the production of steel on an equally great scale. In recent years, it has also vastly extended the scope of its tobacco manufactures. Indeed, there are few departments of manufacture upon which the

Southern States have not already entered, and with a degree of success, both in the character of the goods turned out, and in the extent of the profit that seems to assure for them in the end the highest development in this branch of industry.

The coal underlying the mountains, the crude minerals that crop out of the surface of the hills and valleys, the vast beds of phosphate ore, the subterranean pools of natural oil, the reservoirs of natural gas, and the almost interminable forests of pine and hardwoods—all these no longer remain unused or waste away from year to year; they have become a source of rapidly increasing wealth to the South, not only by their sale as raw materials abroad, but also by their consumption in local manufactures. It is one drawback of the present comparatively limited degree of manufacturing development in the Southern States that they do not yet possess a sufficient market within their own borders for the disposal of the bulk of the annual output of their own coal, minerals, and lumber. The draft for outside consumption on the resources in these respects is quite sure to diminish them to an extent that will be seriously felt at a future time when the South shall have become, perhaps, the most important manufacturing community on the globe. This is the only phase of the recent growth of this part of the Union which in the end may lead to injurious consequences. Enormous as are the elements of natural wealth possessed by the South, her wisest economical policy from the point of view of her ultimate needs would seem to be to retain for her own future use a larger proportion of certain of these raw materials than she is doing, or to make greater immediate use of them by the employment of more considerable amounts of foreign capital in extending her present manufactures.

Looking at the Southern States as a whole, we find that they are no longer communities satisfied to be agricultural only, as in the days of slavery and the large plantations; they have become producers in the broadest sense of the

word—producers not only of raw agricultural materials, but also of a great variety of manufactured goods as well. They are no longer forwarding their entire crop of cotton to other countries to be converted into a thousand different fabrics; they are no longer sending abroad their entire output of coal and pig iron to be used in the making of finished iron and steel; they are no longer exporting their entire annual cut of soft and hard woods to be fashioned elsewhere into ships, houses, and furniture. The vast wealth to be derived from turning these raw materials into hundreds of new forms is now steadily falling into the lap of these States instead of dropping into the pockets of the manufacturers of other lands; their opportunities for accumulating an ever increasing amount of capital for the general advancement of their welfare along every line of endeavor have thus been more than doubled. In the variety of their interests, these States now occupy the ground which every really great country must always do—their prosperity is no longer dependent upon one department of industry; it is now derived from the development of every department. Already, one of the greatest of agricultural communities, and also one of the greatest of communities in the production of raw minerals, they are rapidly growing to be one of the greatest of manufacturing communities. The benefit from every point of view which has already come to them from this diversification of their economic interests is enormous, but it is really small as compared with the additional benefit that will come from the same source with the progress of time.

Fourth, extension and consolidation of railroads. One of the most powerful influences at work in the Southern States for the advancement of their general welfare is the rapid extension of their railway systems which is now taking place. In no part of the Union has every facility for transportation by this means been more carefully provided for than in these States during the course of the last twenty years, whether we look at the completeness and excellence

of the equipment for traffic, both passenger and freight, or the length of the new mileage. There is not a single Southern commonwealth which does not now possess more than one great railway in each of its different divisions; when the need for an extension of a line into some part not as yet traversed by a track becomes urgent, sufficient capital is subscribed to meet the cost of building it. The great consolidated systems themselves show extraordinary solicitude in anticipating and satisfying the demands in this respect of the growing communities of the South which are lacking in transportation by rail; when the volume of traffic seems to justify it, they are always ready to construct a branch line. Many roads, of a purely local character at first, have become important links in through railways by their gradual extension to some great centre of population. One has only to compare the map of the South in 1905 with that of the same region in 1876 to see how many spurs have in this interval been thrown off by the main stems, how far the ramifications of branch lines have spread, and how few communities have been left to languish without railway facilities. Every present sign seems to foreshadow the fact that in time the States of the South will possess as great a network of railways as now covers the surface of the Western States.

It is quite probable that, in no very remote future, electric railroads will become a very common means of transportation in the Southern rural districts. There is already a great demand for them in the trucking region for the purpose of removing the produce to the stations on the nearest railroad, with as much speed and as little damage in the passage as possible. As the area of country given over to trucking spreads, short electric lines, built and operated at small cost, will grow in importance as feeders for the steam railways; such lines will exercise an extraordinary influence in promoting an intensive system of culture, and also in creating opportunities for the accumulation of money not now possessed by the farmers in many neighborhoods



Street in Baltimore, Maryland.



Fountain Square, Montgomery, Alabama.

ESE LIBRARY
OF THE
UNIVERSITY
OF
LIFORNIA

of the South, owing to the entire absence in these neighborhoods of all facilities for transporting fruits and vegetables.

The consolidation of Southern railways into three or four great systems, each in the possession of a field not to any great degree overlapping that of any other, has made every one of these systems a powerful agent for the advancement of the general welfare of the particular region through which its different lines pass. One single corporation controlling all the railroads in one entire reach of country can do more to build it up than half a dozen lines, each small in extent and limited in capital, and each under a different management, could accomplish. The consolidated system at once establishes a department, whose only object is to spread abroad in the world knowledge of the advantages of all kinds that the regions traversed by its branches have to offer to capitalists and new settlers. The Southern Railway, for instance, has such a department, which has won a high reputation for the successful work it has done in advertising. And so with all the other great systems. The officers in charge of these departments are among the ablest, most alert, and best informed men in the United States. The growing prosperity, not only of manufactures, but also of agriculture, along the Southern lines, in consequence of wiser methods of cultivation and greater diversification of products, is largely due to the intelligence and energy with which these railway officials have performed their duties. In no way do the powerful consolidated railway systems of the South promise more to that part of the Union than in continuing their present policy of scattering far and wide more correct ideas as to how the natural advantages of their special regions of country are to be used; of promoting with unceasing effort a tide of the more desirable class of new settlers; and of giving the most active encouragement to the enlargement of the scope of local manufacture. Their immigration and agricultural bureaus have never confined their attention, in a provincial spirit, to one State, but, with an imperial breadth of view, have looked to the

needs of groups of commonwealths and of vast regions of country. When the operation of this policy, which is now so wisely and energetically directed toward the accomplishment of its objects, has been extended over a half-century more, it will then be seen to have been one of the mightiest influences at work in the Southern States during that period for the increase of their wealth and population.

As time passes, the narrow public hostility which has done so much to hamper the growth of the Southern railways will give way to the fullest recognition of their extraordinary usefulness in advancing the prosperity of these States. Already there is a more liberal public spirit in dealing with them, as shown by the disposition to reduce the number of unnecessary checks placed on them by legislative action. Each commonwealth, it is true, still has a railway commission which exercises a certain degree of control over the administration of their affairs within the State's boundaries, but there is now less of the popular belief that a railroad, because a corporation, is, by the very nature of things, the enemy of the community. On the contrary, there is a growing feeling, having its origin in the generally wise manner in which the consolidated systems of the South are managed, that the railway is dependent for its own prosperity on the prosperity of the community; and that whatever advances the interests of the former advances the interests of the latter; and that in working for its own welfare within legitimate restrictions, the railway is really working for the welfare of the whole people.

Fifth, the spread of public education. In no direction has the advance of the Southern people been more remarkable than in that of public education. Thirty-five years ago there were no general regulations for public instruction in the Southern States; from one end to the other of these States there is now a system of public schools organized upon a permanent footing, and performing, in spite of many serious defects, due chiefly to the sparseness of the population in so many remote countrysides, a work of incalcu-

lable benefit to the entire community. The extraordinary sacrifices made by the Southern States in establishing these schools; the enormous amount of money in proportion to the public income which is annually expended for their support and improvement; the steady advance in their efficiency by the more scientific training of the teachers in the normal colleges, and by the gradual broadening of the course of studies in the schools themselves; the practical disregard of race in the opportunities of instruction which are given free of charge—all these facts go to make up one of the noblest chapters in the recent history of the Southern people, and foreshadow, as the wealth and population of the South increase, achievements along the same line beside which those of the past will seem small indeed.

In public instruction, offered without cost to every individual in the community, of whatever color or condition in life, is to be discovered the firmest ground of hope for the moral and intellectual improvement of the Southern people as well as for the wisest use by them of the varied natural advantages which Providence has bestowed upon their region of country almost without stint. There are many persons in the Southern States to-day who have fully grasped the relation that public education is to bear to the general development of these States in the future. Perhaps the most farseeing patriots in that part of the Union at the present time are to be found in the presidential chairs of its leading institutions of learning. One of the most promising features of its contemporary growth is the number of men of great capacity who are giving the full force of their talents and training to the cause of Southern education, with the keenest sense of the exalted character of their profession and with the justest appreciation of its relation to the general progress of the South. If these men had been born and were still living in slavery times, many of them would have turned instinctively to public life as a career, but repelled by the political conditions prevailing at the hour they reached manhood, and forced by narrow private means to follow a pursuit

that would assure an immediate support, they devoted themselves to the teacher's occupation with all the zeal and broadness of spirit that would have distinguished their participation in public affairs. Among the noblest addresses delivered in recent years have been those by men filling prominent chairs in the educational institutions of the South, who have looked beyond the ordinary objects of general education to the supreme object of restoring through it the Southern States to their former commanding power and influence in the Union.

Now that the leadership of men whose entire lives are absorbed in a public career has become, at least for a time, a thing of the past in the South, it is from its teachers that the bulk of its people are, either directly or indirectly, receiving their wisest guidance in the political and economic affairs of their country. It is on these teachers chiefly that, for many years to come, the masses must rely for that general advancement in information which will enable them to form a correct judgment in deciding all the questions affecting their nearest interests. It is not going too far to say that, as a body, the teachers in the different Southern institutions are the most important agents for the general improvement of the whole community to be found in that part of the Union—that they are animated by the highest sense of their true relation to the people at large—and that their influence for good is steadily growing as their special training becomes more thorough as well as more broad in its scope.

Sixth, the more rapid growth of the white than of the black population. The only cloud of any portentousness hanging over the prospects of the Southern States is the continued expansion of the black population. If that population were increasing at a more rapid rate than the white, it would foreshadow in the end the complete arrest of the course of prosperity upon which these States have now entered. The fact, however, that the white inhabitants, as a body, are steadily outstripping the black in numbers, is an indication

that the evils which are now created by the presence of so many negroes in the South will not relatively and proportionately grow more dangerous. As long as the white population increases at a faster rate, these evils will become more controllable every year. When the development of the Southern States along its present lines has reached its last stage, there is reason to think that an even greater relative decline in the numerical strength of the black population will set in. We have already pointed out the probable effect of the subdivision of Southern lands, and the growth of Southern towns on the numerical expansion of the negro race. As injurious to that race in the end as being shut out of the general field of agriculture, or being subjected to an abnormally high rate of mortality, will be the stress of the relentless competition which is one of the conditions of modern life in all civilized communities. The vaster the growth of the Southern States in wealth and white population, the sharper and more urgent will be the struggle of the black man for existence. In order to hold even his present position as a common laborer, he will have to exert himself to the utmost, and in doing so to submit to a manner of life that will be even more unwholesome and squalid than the one he now follows, and sure to lead to a great increase in the already very high rate of mortality for his race. The day will come in the South, just as it came long ago in the North, when for lack of skill, lack of sobriety, and lack of persistency, the negro will find it more difficult to stand up as a rival of the white workingman. Already, it is the ultimate fate of the negro that is in the balance, not the ultimate fate of the Southern States in consequence of the presence of the negro. The darkest day for the Southern whites has passed, though they still have ground to be apprehensive as to the present effect of the evil influences emanating from the black population in their midst. The darkest day for the Southern blacks has only just begun, for in this age of the world, no race can in the long run hold its own in a civilized land, unless it has

all the moral qualities necessary to meet successfully the trying conditions of life prevailing in a highly organized modern community.

Seventh, the limitation of the suffrage. The South has had recourse to two means of diminishing the evils resulting from the presence of the negro population. First, she has expended millions of dollars in the support of the public schools for the race in the hope that education would instil more steady, conservative, and industrious habits, as well as inculcate juster ideas as to the varied requirements of true citizenship and manhood. Secondly, she has taken away from the bulk of the race the right to cast a ballot, which had, as a rule, been used by the negroes for the destruction of the best interests of the community. This is a notable step forward in the recent history of the Southern States. It removes the great majority of the blacks from the field of politics, and confines their attention to the improvement of their condition in the ordinary material affairs of life; it eliminates from the atmosphere of Southern communities the most frequent cause of friction between the two races, namely, that political antagonism which has always reacted to the disadvantage of both the negro and the white man, but especially of the negro. It places the franchise on the highest level that it has occupied in the Southern States since the War; and to that important extent has advanced the general public sentiment as to this great privilege of citizenship.

But it is not simply in the curtailment of negro suffrage that the recent constitutional clauses qualifying the right to vote have their chief significance and value; of even greater importance is the operation of these provisions in their relation to the franchise in general—to negro and white man alike. Their logical effect is to reduce the number of white ballots also, for in time they will certainly be enforced regardless of color. The precedent will not stop with the negro; it will broaden until it involves the white man too, though really designed to involve only the black. For what

does the qualification of the suffrage in the South mean? It means that the principle of manhood suffrage without a basis of education and property has received a blow that ultimately will completely destroy it. In striking that blow, the constitutional conventions really struck the principle in its general bearing, as relating to whites and blacks together, and not simply in its particular bearing, relating to the negro alone; inevitably, before the end of many years, a franchise law will be adopted in the Southern States, as a whole, that will not only be enforced with fairness as to both races, but also will eliminate with equal effectiveness the least intelligent and the least conservative elements among the white and black voters alike. This will be of extraordinary advantage to the general moral health and prosperity of these States; and it will do far more than any other influence to restore them to that commanding position in the Union to which they are justly entitled, not only in the light of all that they have contributed to the greatness of the American name in the past, but also in the light of the present character and capacity of their people.

In looking back over the years that have passed since the close of the War, the historian is deeply impressed with what the Southern people have achieved during this short interval. They began their new career with their communities disorganized by the most terrible conflict of modern times; with slavery, the corner stone of their whole economic and social system for at least two centuries, abolished; with no means to meet their debts and no capital to inaugurate new enterprises; with their lands stripped of everything but the vegetation; with their towns and cities sunk in decay, and with poverty, ruin, and disappointment in a hundred other equally hideous forms to face on all sides—such was the general condition of the Southern people in the first years following the end of the great War. At the close of the era of Reconstruction, their situation in most of the States was, if possible, even worse; for to the destruction wrought by cannon and torch had been added the

open robberies of the "Carpetbag" governments, the most corrupt combinations that have ever afflicted any land. In the twenty-nine years which have followed the restoration of the whites to political control, it is not too much to say that the Southern States have risen from the dust of absolute ruin to a position distinguished, in some respects, for greater prosperity than they enjoyed during the existence of the old order of society. Their people have adapted themselves to the new conditions of their lives with a quickness and thoroughness that have commanded the respect of the world. The trials to which they have been exposed during these twenty-nine years have been severer tests of character than were the sacrifices and hardships even of the four years of war, when there was the excitement of a great conflict to sustain them, and also the eager hopes of an ardent and confident patriotism. Their struggle has been with evils of a prosaic nature totally lacking in all power to arouse enthusiasm, but the energy with which they have met these evils has never known one moment's faltering. They emerge from the terrible ordeal the greater in courage and wisdom for all that they have been called upon to endure. The last quarter of the nineteenth century is certain to be pronounced in the future to be, from many points of view, the most honorable period in their history, illustrious as that history has been made by achievements in war as well as in peace. It constitutes one of the noblest chapters in the annals of our country and foreshadows for the Southern States, under the happy and prosperous conditions now prevailing, a career that will be unsurpassed, perhaps unequalled, in the record of any other part of the Union.

APPENDIX I

Progress of Twenty-five years of Public Schools in the Region Comprising the States of Delaware, Maryland, District of Columbia, Virginia, West Virginia, North and South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Arkansas, and Missouri.

	1875.	1885.	1895.	1900.
Total population	16,143,900	20,458,665	24,371,400	27,076,059
School population, 5 to 18 years	5,342,300	6,828,570	8,297,160	9,214,700
Pupils enrolled	2,439,843	3,991,233	5,286,696	5,806,598
Per cent of the school population enrolled	45.67	58.45	63.72	63.01
Average daily attendance	1,521,171	2,554,788	3,369,714	3,732,579
Per cent of enrollment	63.34	64.00	63.77	64.28
Male teachers	39,215	52,758	56,308	55,765
Female teachers	20,456	37,416	60,049	71,812
Whole number of teachers	59,671	90,174	116,357	127,577
Schoolhouses	49,447	76,361	91,288	96,849
Value of all school property	$17,293,023	$27,884,143	$56,808,049	$67,473,856
Average value of a school property	$350	$365	$622	$697
Average number of days school kept in the year	93	93	106	109.6
Expenditures for teachers and superintendents' salaries	$10,459,446	$15,340,916	$23,195,150	$26,599,599
Average salary of teacher per month	$41.60			$31.75
Total expenditures	$13,021,514	$19,253,874	$29,372,990	$36,280,166
Expended per capita of population	$0.81	$0.94	$1.21	$1.34
Expended per pupil in attendance	$8.56	$7.54	$8.72	$9.72

The preceding table—which was compiled by President C. W. Dabney, of the University of Tennessee, one of the most distinguished authorities on Southern education now living—gives the statistics for the territory in which slavery was firmly seated, and is especially interesting as showing

what has been done for the advancement of the public school system in that vast area of country since the establishment there of free institutions. The figures for Delaware, the District of Columbia, and Missouri only slightly modify the general result so far as it involves the fourteen States which have always been considered to be the most distinctly Southern; namely, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Florida, Georgia, Alabama, Mississippi, Tennessee, Kentucky, Arkansas, Louisiana, and Texas.

APPENDIX II

Southern Agricultural Progress in Twenty Years.

States.	Farm Values.		Value of Farm Products.	
	1880.	1900.	1880.	1900.
Alabama	$106,531,307	$179,399,882	$56,872,994	$91,387,409
Arkansas	99,359,577	181,416,001	43,796,261	79,649,490
District of Columbia	3,792,501	11,535,376	514,441	870,247
Florida	27,902,481	53,929,064	7,439,392	18,309,104
Georgia	143,158,308	228,374,637	67,028,929	104,304,476
Kentucky	358,703,832	471,045,856	63,850,155	123,266,785
Louisiana	76,770,547	198,536,906	42,883,522	72,667,302
Maryland	187,157,266	204,645,407	28,839,281	43,823,419
Mississippi	122,016,268	204,221,027	63,701,844	102,492,283
North Carolina	164,286,737	233,834,693	51,729,611	89,309,638
South Carolina	84,079,702	153,591,159	41,108,112	68,266,912
Tennessee	259,456,170	341,202,025	62,076,311	106,166,440
Texas	256,084,364	962,476,273	65,204,329	239,823,244
Virginia	247,476,536	323,515,977	45,726,221	86,548,545
West Virginia	153,588,725	203,907,349	19,360,049	44,768,979
Total	$2,290,364,321	$3,951,631,632	$660,131,452	$1,271,654,273

APPENDIX III

General Banking Resources of the Southern States, June 29, 1901.

	Number of Banks.	Loans.	Capital.	Deposits.	Surplus.	Undivided Profits.
National banks	676	$309,418,691	$87,616,480	$311,889,922	$30,699,228	$16,900,822
State banks	1,345	210,572,446	73,478,510	212,736,500	14,888,105	7,354,195
Savings banks	52	17,873,855	1,250,600	74,701,191	2,670,344	1,025,031
Loan and trust companies	65	15,947,753	12,743,782	14,334,791	4,845,565	2,170,551
Private banks	312	17,247,440	16,111,703	17,360,367	1,415,440	681,801
Total	2,450	$571,060,185	$191,201,075	$638,022,771	$54,518,682	$28,232,400

APPENDIX IV

Exports of Merchandise from Southern Ports, 1890 and 1901.

	1890.	1901.
New Orleans	$108,126,891	$152,776,599
Baltimore	73,983,693	106,239,081
Galveston	24,446,831	101,857,300
Savannah	30,884,451	46,738,967
Newport News	6,958,369	32,567,912
Pensacola	3,451,735	13,455,761
Wilmington	6,934,720	12,013,659
Mobile	3,372,429	11,837,105
Norfolk	14,247,477	10,308,489
Brunswick	7,757,564	7,952,637
Charleston	13,788,751	7,084,215
Pearl River	1,064,461	2,817,298
Fernandina	296,124	1,904,770
Tampa		1,321,419
Key West	436,400	1,033,265
Appalachicola	195,747	365,782
St. John's	41,561	204,670
Beaufort, South Carolina	1,140,656	129,639
Richmond	8,874,998	17,200
Georgetown, South Carolina	22,436	5,500
St. Marks, Florida	9,485	
St. Mary's, Georgia	59,370	
Pamlico, North Carolina	17,538	
Total	$306,111,687	$510,631,268

APPENDIX V

Value of Southern Imports, 1890 and 1901.

	1890.	1901.
Baltimore	$13,140,203	$18,899,473
Beaufort, South Carolina	24,354	192,135
Brunswick, Georgia	6,791	28,135
Charleston, South Carolina	646,644	1,477,719
Fernandina	711	49,867
Newport News	54,180	4,090,451
Norfolk and Portsmouth	89,042	593,930
Richmond, Virginia	61,042	93,973
St. John's, Florida	81,897	61,684
Savannah	472,343	645,067
Wilmington, North Carolina	137,061	180,912
Corpus Christi	2,606,771	1,675,320
Galveston	415,792	953,801
Key West, Florida	1,100,389	491,984
Mobile	107,015	3,008,449
New Orleans	14,658,153	20,462,307
Pensacola	22,551	238,334
Saluria, Texas	1,433,072	1,165,020
Tampa	535,737	1,513,452
Total	$35,593,748	$55,822,013

APPENDIX VI

THE following table, prepared by Edward Ingle, of the *Manufacturers' Record*,—which publication has also furnished the statistics in appendices II, IV, and V,—presents the figures showing the advance in the assessed values of Southern States since 1880:

Estimated Growth of the South in Material Wealth, 1880 to 1900.

STATES.	1880.	1890.	1900.
Alabama	$139,077,328	$263,776,624	$270,408,432
Arkansas	90,511,653	174,737,755	201,908,783
District of Columbia	99,401,787	148,649,596	190,958,987
Florida	31,157,846	91,983,466	96,686,954
Georgia	251,424,651	415,828,945	433,323,691
Kentucky	370,743,384	547,596,788	640,688,240
Louisiana	177,096,549	234,350,791	276,659,407
Maryland	459,187,408	482,184,824	* 666,857,803
Mississippi	115,130,651	165,847,334	215,765,947
North Carolina	169,916,709	216,872,374	306,579,715
South Carolina	134,162,834	150,602,451	176,422,288
Tennessee	238,939,364	382,758,188	396,363,566
Texas	311,470,736	782,111,883	914,007,634
Virginia	318,331,441	415,249,107	480,425,025
West Virginia	144,622,757	186,964,707	240,634,580
Total	$3,051,175,098	$4,659,514,833	$5,916,960,712

* Partly estimated.

CHRONOLOGICAL TABLE

DATE		PAGE
1811.	Free school system introduced in South Carolina	324
	Free school system instituted in North Carolina	324
1825.	Public school system adopted in Maryland	323
1830.	First railway operated in South Carolina	281
1831.	Railway constructed between New Orleans and Pontchartrain	281
	First railway built in Virginia	281
1833.	First railroad laid in North Carolina	281
1834.	Railroad constructed between Tuscumbia and Decatur, Alabama	281
1835.	Railroad built between Lexington and Frankfort, Kentucky	281
1836.	First railway constructed in Florida	281
1841.	Public school system established in Virginia	323
	First railroad constructed in Mississippi	281
1842.	First railroad built within the present State of West Virginia	281
1845.	Constitutional provision for public school system established in Louisiana	327
	Common school system provided in Texas	327
1846.	Public school system established in Mississippi	326
1849.	Florida enacted common school establishment	325
1850.	First vegetables consigned from the South	63
	Permanent school fund created in Kentucky	326

DATE		PAGE
1853.	First railroad built in Tennessee	282
1854.	Public school system established in Alabama	326
1857.	First railroad constructed in Arkansas	282
	First railroad built in Texas	282
1858.	Public school system established in Georgia	325
1860.	Coke first used in iron making in the South	219
1862.	Morrill Act passed in furtherance of agricultural education	38
1863.	West Virginia established general free school system	327, 333
1864.	General free schools established in Arkansas	327, 334, 339
	Maryland constitution provided general free school system	328, 334, 339
	General free school system established by constitution in Louisiana	328, 334, 338
1865.	Peanut first extensively cultivated in Virginia	66
	Period of active railroad construction began in the United States	112
	General free school system instituted in Florida	328, 335, 338
1866.	Peabody Fund in aid of Southern education established	35, 397
	Truck gardening began in Mississippi	68
	Texas established general free school system	328, 335, 339, 341
1867.	Rockwood (Tennessee) coke furnace erected	219
	Maryland adopted a new constitution	328
1868.	Hampton Normal and Agricultural Institute founded	36, 162
	Phosphate mining began in South Carolina	127
	New constitution adopted by Florida	328, 335, 339
1868.	Georgia established general free school system	328, 336, 339
	South Carolina instituted general free school system	328, 336, 339

DATE		PAGE
1868.	Alabama provided by constitution for free school system	328, 336, 339
	Constitutional provision made for free schools in Mississippi	328, 336, 340
	Free school system established in North Carolina	328, 337, 340
	New constitution adopted by Louisiana	334
	Arkansas adopted a new constitution	334, 339
1869.	Texas adopted a new constitution	328, 335, 339
	Virginia established general free school system	328, 337, 340
1870.	Cotton seed hulls came into use as forage for live stock	73
1871.	Birmingham, Alabama, incorporated	243
1872.	West Virginia adopted a new constitution	328, 333
1873.	Tennessee and Kentucky coal mining began	115
	West Virginia coal mines first operated	115
	Johns Hopkins Hospital founded	235
1874.	Chesapeake and Ohio Railroad finished to the Ohio	287
	Arkansas adopted a new constitution	328
1875.	Alabama adopted a new constitution	328, 336
1876.	Reconstruction Era ended—South resumed her local government	3
	Johns Hopkins University incorporated	234
	North Carolina adopted a new constitution	328, 337
	New constitution adopted by Texas	328, 338, 339
1877.	North Carolina Experiment Station established	39
	Louisiana sugar industry practically developed	59
	Atlanta made the capital of Georgia	241
	Georgia adopted a new constitution	328, 336, 338
1879.	New constitution adopted by Louisiana	328
1880.	Southern pine lumber interest developed	87
	Tuskegee Normal and Industrial Institute founded	36, 163
	Total coal output of the South	115

DATE		PAGE
1881.	Cotton exposition held at Atlanta	241
1882.	Slater Fund for the education of Southern negroes established	401
1883.	Iron pyrites in Virginia first mined	134
1883–1884.	Cotton exposition held at New Orleans	249
1884.	Hatch Act passed by Congress in aid of agricultural education	38
1885.	First shipment of Southern vegetables made by rail to New York	63
	Total coal output of the South	116
	Newport News became a great shipping point	255
	Florida adopted a new constitution	328, 335, 339
1887.	Armor plate industry began in United States	112
	Interstate Commerce Act passed	299
1888.	Phosphate rock mining in Florida began	128
	Experiments first made in Alabama in the manufacture of Bessemer steel	216
1890.	Tin plate and steel car making became important industries	112
	Total coal output of the South	116
	Ship construction began at Newport News	222
	Furniture making established in North Carolina	225
	Mississippi adopted a new constitution	340
	Educational qualification for suffrage adopted by Mississippi	449
1891.	Phosphate rock first mined in Florida	128
1893.	Clemson College, South Carolina, established	40, 191
	Oil first drilled for in the Beaumont field, Texas	124
	Phosphate deposits of Tennessee discovered	129
	Johns Hopkins Medical School established	235
1895.	Estimated annual cut of pine in South	88
	Exposition held at Atlanta	241, 249
	South Carolina adopted educational qualification for voting	450

DATE		PAGE
1897.	Tennessee Centennial Exposition held at Nashville	248
1898.	Cotton mill strike in Augusta, Georgia	187
	Iron rolling mills established in the South	216
	Railway consolidation initiated in the South	284
	Property qualification for voters adopted by South Carolina	450
	Louisiana adopted educational and property qualification in suffrage laws	451
1899.	Quantity of North Carolina lumber shipped from Norfolk	87
	Bauxite found in Arkansas	135
	Experimental use of negro labor made in Southern cotton mills	184
1899–1900.	Expenditure on public schools in the Southern States	348
	Number of white pupils attending Southern public schools	358, 381
	Private institutions for higher education of Southern negroes	393
1900.	Native foreign-born inhabitants of the South	6
	Rural population in the South	15
	Negro landowners in Virginia, Georgia, and Kentucky	22
	Number of persons engaged in Southern agriculture	24
	Agricultural wealth of the South	45
	Value of the Louisiana sugar crop	60
	Value of principal truck and fruit crops	69
	Capital and output of Southern lumber trade	90
	Value of Southern mineral products	111
	Total coal output of the South	121
	Phosphate product of South Carolina, Florida, and Tennessee	131
	Value of copper output of the South	132
	Value of Southern lead output	133

DATE		PAGE
1900.	Value of the gold output of the South	133
	Value of Southern clay products	138
	Total manufacturing capital and product of the South	154
	Capital employed in Southern cotton mills	171
	Capital invested in woollen manufacture in the South	205
	Capital engaged in cotton seed oil mills	206
	Cotton seed oil exported	208
	Output of Southern pig iron	213
	Value of lumber product of the South	224
	Value of planing mill product	224
	Value of manufactured tobacco in Virginia	227
	Value of manufactured tobacco in North Carolina	227
	Value of manufactured tobacco in Kentucky	228
	Value of manufactured tobacco in Maryland	229
	Capital and product of Southern distilleries	229
	Capital invested in manufacture in Richmond	236
	Capital employed in manufacturing in Norfolk	237
	Capital engaged in Florida's manufacturing industries	241
	Bank clearings of Savannah	242
	Capital employed in manufactures in Georgia	243
	Capital engaged in manufacture in Birmingham, Alabama	244
	Amount of capital in manufacturing enterprises in Mississippi	245
	Capital engaged in industrial enterprises in Tennessee	245
	Capital employed in manufacture in Kentucky	246
	Capital invested in manufacture in Texas	247
	Capital employed in manufactures in Louisiana	247

DATE		PAGE
1900.	Imports at Southern ports	261, 262
	Galveston wrecked by great hurricane . .	262
	Gross earnings of Southern railroads . . .	283
	Groups of principal railway systems of the South	286
	Number of public school teachers in the Southern States	348
	Number of public high schools in the Southern States	349
	Private secondary schools in the Southern States	351
	Private normal schools in the Southern States	352
	Institutions for higher education in the Southern States	376
	Institutions solely for the higher education of women in the Southern States . . .	376
	Negro students in Southern private high schools and academies	393
	North Carolina adopted educational and property qualification in suffrage laws . .	451
1901.	Value of Southern live stock	77
	Texas oil industry became famous . . 123,	124
	Bank deposits and clearings of Richmond .	236
	Bank capital and clearings of Norfolk . .	238
	Clearings of Memphis banks	245
	Total value of exports from Southern ports	251
	Tonnage of vessels cleared from Southern ports	252
	Corn shipments from Southern ports . . .	253
	Cotton shipments from Southern ports . .	253
	Hog products shipped from Southern ports .	253
	Manufactured cotton shipped from Southern ports	254
	Flour shipped from Southern ports . . .	254
	New Orleans became practically a free port	254
	Domestic exports of Savannah	261

DATE		PAGE
1901.	Total number of Southern banks . . .	266, 279
	Number and total capital of National banks of the South	267
	Resources of Southern National banks . .	277
	Capital and deposits of Southern State banks .	278
	Southern Savings banks—capital and deposits .	278
	Southern State banks	278
	Southern private banks—capital and deposits	279
	Railway trackage in Southern States . . .	282
	Alabama constitution revised	441
	Mississippi State debt.	441
1901–1902.	Capital employed in manufacturing in Charleston	240
	Interstate and West Indian Exposition held at Charleston	240, 249
1902.	Drydock completed at Newport News . .	222
	Battleship *Illinois* launched at Newport News	223
	Bank deposits and clearings of Birmingham, Alabama	244
	Kentucky State debt	440
	Arkansas State debt	441
	Louisiana State debt	441
	Alabama State debt	441
	Florida State debt	441
	Tennessee State debt	441
	South Carolina State debt	441
	Georgia State debt	441
	North Carolina State debt	441
	Texas State debt	442
1903.	Tobacco crop of the South	51
	Total corn and wheat crop of the South . .	54
	Virginia State debt	440

LIST OF ILLUSTRATIONS

VOLUME XVII

FACING PAGE

Capitol at Austin, Texas. *Type of State buildings in the South.* *title*

The cotton levee on Mississippi River at New Orleans, Louisiana 17

Shipping oranges on Ochlawaha River, Florida 32

Lemon trees on a Florida plantation, Lake Worth 49

Cotton pickers in the field, Georgia 49

Lumber dock at Jacksonville, Florida 64

Loading phosphate schooner at Savannah, Georgia 64

Fire and police stations and other municipal buildings, Louisville, Kentucky 81

A street and the sea wall of Galveston, Texas 96

Marble Hall in the Court House at New Orleans, Louisiana . . 128

Floating dock, the largest in the world, for Cavite Arsenal, Philippines, in course of construction by the Maryland Steel Company, at Sparrow Point, near Baltimore 145

Post Office at San Antonio, Texas 177

Custom House at New Orleans, Louisiana 192

Jackson Square, New Orleans, Louisiana 209

Capitol Park, with Capitol and new City Hall, Richmond, Virginia 224

Royal Street, Mobile, Alabama 241

Residences on South and East Batteries in Charleston, South Carolina 256

FACING PAGE

Map showing the railroads in the southern portion of the United States 273

Facsimile of the Parthenon, erected for use as the Art Gallery of the Tennessee Centennial Exposition, held at Nashville in 1897 289

Type of Mississippi River steamer 304

Floating dock at Algiers, near New Orleans, Louisiana. Battleship *Illinois* in the largest floating dock in America . . . 321

Howard Memorial Library and Confederate Memorial Hall, New Orleans, Louisiana 336

Andrew Carnegie 369

University of Texas at Austin 384

Booker T. Washington, president of the Tuskegee Normal and Industrial Institute 401

Brigadier-general Samuel Chapman Armstrong, founder of the Hampton Normal and Agricultural Institute, Virginia . . 416

Carnegie Public Library at Atlanta, Georgia 449

Street in Baltimore, Maryland 464

Fountain Square, Montgomery, Alabama 464

REESE LIBRARY OF THE UNIVERSITY OF CALIFORNIA